



Safety Data Sheet For the use of an Article

(Not required by the REACH – GHS Regulations)

SECTION 1: Identification of the article and of the company/undertaking

Date of first issue 13/12/2006
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Version number 06
Supersedes date 17/11/2015

1.1. Product identifier

Brand name: **Cold Rolled Steels**
Reach status: Article
Company: **ArcelorMittal S.A**
 24-26 Bld d'Avranches
 L-1160 Luxembourg
Telephone: + 352 47 92 1
E-mail: fce-msds@arcelormittal.com
Website: www.arcelormittal.com

1.2. Relevant identified uses of the article and uses advised against

Identified uses: Steel for bending, drawing, welding, etc

Commercial Sheet	Identified Uses
B10	Automotive industry, the domestic appliance sector, metal furniture, drums, radiators, fans, tubes and small profiles.
B20	Structural parts that do not require severe forming (profiling, bending or light drawing): automotive structures and reinforcements, industrial shelving systems, furniture, mechanical engineering applications etc.
B30	Building components, containers, storage tanks and roll formed profiles.
B34	Architecture, sculpture, engineering structures, containers and cable trays
B40	Manufacture of casing panels for domestic appliances, heating equipment, furniture, shelving, drums etc.
B50	Deep drawing and construction applications.
B64	Gas containers.

Uses advised against: None identified.

1.3. Details of the supplier of the safety data sheet

Department supplying safety information: ArcelorMittal Health & Safety – Product Safety
 24-26 Bld d'Avranches
 L-1160 Luxembourg
E-mail: rip.reach@arcelormittal.com

1.4. Emergency telephone number

Emergency Fax: +352 4792 89 3756

SECTION 2: Hazards identification

Effects on human health: Related to protective oil, for articles delivered oiled.

Skin contact: In the event of direct contacts (without gloves) frequent or prolonged (oils):

- Local effects: Possible irritation phenomena.
- Sensitization: Possible allergy phenomena.

Eye contact: Local effects: risk of irritation.
 Indirect (protective oil)

Inhalation: Respect of the occupational exposure limit values noted in this SDS. See heading 8.

Ingestion: Not applicable as it is.

Main hazard to the environment: None.



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Prevention: Safety gloves and glasses must be worn during handling.

SECTION 3: Composition/information on ingredients

Chemical composition (percent by weight):

Steel Substrate	Surface Treatment	Temporary protection
Main Elements: Fe > 90%, Mn ≤ 2.1%, Al ≤ 2%, Cr ≤ 0,8%, Cu ≤ 0.55% Others elements: Si ≤ 0.5 %, P ≤ 0.15%, Nb ≤ 0.09%, V ≤ 0.22%, Ti ≤ 0.3%, Ni ≤ 0.3%	Ready-to-Paint: Poly (siloxanes) system	Oil

European Standards:

Designation	Standard	Commercial Sheet
Cold rolled low carbon steel flat products for cold forming	EN10130	B10
High Strength Low Alloy Steels	EN10268	B20
Structural steels	-	B30
Indaten® atmospheric corrosion resistant steels	-	B34
Steels with guaranteed mechanical properties	EN10130	B40
Steels with a specific chemical composition	ASTM A568-2003	B50
Hot rolled and cold rolled non-coated flat products of multiphase steels for cold forming	Pr EN 10338 and/or SEW 097-2	B64

SECTION 4: First aid measures

Specific hazards:	Related to protective oil.
Skin contact:	Wash well with soap and large amounts of water.
Eye contact:	
Indirect (protective oil)	Rinse with large amounts of water. Take medical advice.
Inhalation:	Not applicable as it is.
Ingestion:	Not applicable as it is.
Specific first aid:	Not applicable as it is.

SECTION 5: Fire fighting measures

General fire hazards	Non-flammable.
5.1. Extinguishing media	Use extinction means suitable with the stored products in the vicinity.
5.2. Special hazards arising from article	Not applicable.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures	
Not applicable.	
6.2. Environmental precautions	Article generates no particular environmental hazards.
6.3. Methods and material for containment and cleaning up	
Not specifically concerned.	

SECTION 7: Handling and storage

7.1. Precautions for safe handling	Delivered packaged. Normal precautions should be taken to avoid injuries possibly by sharp edges or by release of tension when breaking the straps.
7.2. Conditions for safe storage, including any incompatibilities	
Article has not to be stored where acids are present.	

**Precautions to be taken during storage and packaging:**

Related to packaging: safety gloves (cuts), glasses and shoes must be worn.
Risk of oil retention in bottom of packaging.
When storing sheets, the risk of accidentally slipping should be kept in mind.

Packaging materials:

Steel sheet and/or paper + tightened strip.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits during welding, grinding, cutting and recycling by remelting:****United Kingdom. Workplace Exposure Limits (WELs)**

Components	Type	Value	Form
Dust	TWA	10 mg/m ³	Inhalable
		4 mg/m ³	Respirable
Manganese and its inorganic compounds	TWA	0.5 mg/m ³	As Mn
Aluminium metal	TWA	10 mg/m ³	Inhalable as Al
		4 mg/m ³	Respirable as Al
Silicon	TWA	10 mg/m ³	Inhalable
		4 mg/m ³	Respirable
Copper	TWA	1 mg/m ³	Inhalable dusts and mists as Cu
	STEL	2 mg/m ³	Inhalable dusts and mists as Cu
	TWA	0.2 mg/m ³	Fume
Chromium	TWA	0.5 mg/m ³	-
Nickel and its inorganic compounds, water soluble	TWA	0.1 mg/m ³	As Ni
Nickel and its inorganic compounds, water insoluble	TWA	0.5 mg/m ³	As Ni
Decomposition	Type	Value	Form
Iron oxide	TWA	5 mg/m ³	Fume as Fe
	STEL	10 mg/m ³	Fume as Fe
Aluminium oxides	TWA	10 mg/m ³	Inhalable as Al
		4 mg/m ³	Respirable as Al
Amorphous silica (SiO ₂)	TWA	6 mg/m ³	Inhalable
		2.4 mg/m ³	Respirable
Diphosphorus pentoxide	TWA	1 mg/m ³	-
	STEL	2 mg/m ³	-
Titanium dioxide	TWA	10 mg/m ³	Inhalable
		4 mg/m ³	Respirable
Chromium II and III compounds	TWA	0.5 mg/m ³	As Cr
Vanadium pentoxide	TWA	0.05 mg/m ³	-
<i>For the oil and Ready-to-Paint</i>			
Carbon Monoxide	TWA	30 ppm	-
		35 mg/m ³	-
	STEL	200 ppm	-
		232 mg/m ³	-



Decomposition	Type	Value	Form
Carbon Dioxide	TWA	5000 ppm	-
		9150 mg/m ³	-
	STEL	15000 ppm	-
		27400 mg/m ³	-
Benzene	TWA	1ppm	-
		3.25 mg/m ³	-
1, 3-butadiene	TWA	10 ppm	-
		22 mg/m ³	-
Formaldehyde	TWA	2ppm	-
		2.5 mg/m ³	-
	STEL	2 ppm	-
		2.5 mg/m ³	-

Ireland. OELs

Components	Type	Value	Form
Dust, non specific	TWA	10 mg/m ³	Inhalable
		4 mg/m ³	Respirable
Iron oxide	TWA	5 mg/m ³	Fume as Fe
	STEL	10 mg/m ³	Fume as Fe
Manganese	TWA	0.2 mg/m ³	Fume
	STEL	3 mg/m ³	Fume
Aluminium metal	TWA	1 mg/m ³	Respirable
Silicon	TWA	10 mg/m ³	Inhalable
		4 mg/m ³	Respirable
Copper	TWA	1 mg/m ³	Dusts and mists as Cu
	STEL	2 mg/m ³	Dusts and mists as Cu
	TWA	0.2 mg/m ³	Fume as Cu
Chromium	TWA	2 mg/m ³	
Nickel	TWA	0.5 mg/m ³	

Decomposition	Type	Value	Form
Manganese and compounds	TWA	0.2 mg/m ³	As Mn
Aluminium oxides	TWA	10 mg/m ³	Inhalable
		4 mg/m ³	Respirable
Amorphous silica (SiO ₂)	TWA	6 mg/m ³	Inhalable
		2.4 mg/m ³	Respirable
Diphosphorus pentoxide	TWA	1 mg/m ³	-
Titanium dioxide	TWA	10 mg/m ³	Inhalable
		4 mg/m ³	Respirable
Chromium III compounds	TWA	2 mg/m ³	As Cr
Nickel, soluble inorganic compounds	TWA	0.1 mg/m ³	As Ni
Nickel, insoluble inorganic compounds	TWA	0.5 mg/m ³	As Ni
Divanadium pentoxide	TWA	0.05 mg/m ³	Total Inhalable fraction as V



Decomposition	Type	Value	Form
<i>For the oil and Ready-to-Paint</i>			
Carbon Monoxide	TWA	20 ppm	-
		23 mg/m ³	-
	STEL	100 ppm	-
		115 mg/m ³	-
Carbon Dioxide	TWA	5000 ppm	-
		9000 mg/m ³	-
	STEL	15000 ppm	-
		27000 mg/m ³	-
Benzene	TWA	1ppm	-
		3 mg/m ³	-
1, 3-butadiene	TWA	1 ppm	-
		2.2 mg/m ³	-
Formaldehyde	TWA	2ppm	-
		2.5 mg/m ³	-
	STEL	2 ppm	-
		2.5 mg/m ³	-

EU. OELs, Directive 2004/37/EC on carcinogen and mutagens from Annex III, Part A

Decomposition	Type	Value
Benzene	TWA	3,25 mg/m ³
		1 ppm

8.2. Exposure controls**Appropriate engineering controls**

During any processing of the article, in which dust can be generated, ensure that the limits listed above are not exceeded at the workplace. Extraction is therefore recommended at the workplace. Otherwise, personal protective equipments (PPE) should be necessarily worn¹.

Whole-body protection:

Wear worker clothes.

Protection of hands:

Gloves anti-cuts.

Protection of eyes and/or face:

Safety glasses when opening packaging.

Respiratory protection:

Not applicable to article as it is.

Emergency facilities:

Not applicable to article as it is.

Other information:

Safety shoes must be worn.

Hygiene measures:

Not applicable to article as it is.

SECTION 9: Physical and chemical properties**Physical state:**

Solid.

Colour:

Metallic appearance.

pH:

Not applicable.

Characteristic temperatures:

Not applicable.

Flash point:

Not applicable.

Oxidizing properties:

Not applicable.

Specific density:

About 7800 Kg/m³.

Solubility:

Not applicable, article not soluble in water.

Radioactivity:

None in all cases.

¹ It will be noted that collective protection should be firstly used prior to PPEs.

**SECTION 10: Stability and reactivity**

10.1. Reactivity	Not applicable.
10.2. Chemical stability	Stable.
10.3. Possibility of hazardous reactions	No known hazardous reactions with usual substances.
10.4. Conditions to be avoided	None.
10.5. Incompatible materials	None.
10.6. Hazardous decomposition products	None.

SECTION 11: Toxicological information**11.1. Information on toxicological effects**

Effects on human health:	Related to protective oil, for articles delivered oiled. See specific SDS of used protective oil.
Skin contact:	In the event of direct contacts (without gloves) frequent or prolonged (oils): - Local effects: Possible irritation phenomena. - Sensitization: Possible allergy phenomena. Safety gloves should be worn during handling.
Eye contact: Indirect (protective oil)	Local effects: risk of irritation. Safety glasses should be worn.
Inhalation:	Respect of the occupational exposure limit values noted in this SDS. See heading 8.
Ingestion:	Not applicable as it is.

Specific information on substances

Substance and its inorganic compounds	Melting point °C	Boiling Point °C	Risks
Manganese	1244	1962	Risk of manganism among persons exposed.
Aluminium	660	2518	-
Silicon	1413	2899	-
Phosphorus	44	276	-
Niobium	2476	4743	-
Titanium	1667	3286	-
Copper	1083	2567	Risk of metal fume fever among persons exposed
Chromium	1857	2672	-
Nickel	1455	2913	Risk of nickel and nickel oxides exposure during welding.

Allergy: in case of welding, respiratory allergic reactions can occur among sensitised persons.
Irritation risk among persons exposed.

Substance and its inorganic compounds	Melting point °C	Boiling Point °C	Risks
For the oil	Not applicable	Not applicable	During welding, there is emission of fumes and gases containing, in particular, carbon dioxide and carbon monoxide as well as Organic Compounds, including CMR* substances at trace level, like for all organic coated materials welded.
For the Ready-to-Paint	Not applicable	Not applicable	During welding, there is emission of fumes and gases containing, in particular, carbon dioxide and carbon monoxide as well as Organic Compounds, including CMR* substances at trace level, like for all organic coated materials welded and some irritating substances (actetaldehyde, acetoneitrile, acrylonitrile)

SECTION 12: Ecological information

Ecotoxicity:	Article insoluble in water. Material recycled from scrap.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Treatment procedure prior to disposal/

Article recyclable and recycled from scraps in compliance with

destruction:

Directive 2000/53/EC on end of life vehicles and Directive 2011/65/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Used packaging cleaning, treatment, destruction procedures:

Destruction of packaging in accordance with applicable legislation.

SECTION 14: Transport information

Article not dangerous with regard to transport rules.

SECTION 15: Regulatory information

No specific information related to the article.

SECTION 16: Other information'

List of abbreviations

TWA: Time-Weighted Average

Version

Changes

Version	Changes
1	First edition
2	Section 2: change of the layout
3	Section 3 : deletion of commercial sheet B23
4	Update due to Reach
5	Section 1: addition of uses per commercial sheet
6	Section 3: addition of new surface treatment and update of chemical composition.

Comments to the Users:

Due to the fact that the product concerned in this document has a status of article in the meaning of the Reach regulation, this document doesn't constitute a Safety Data Sheet in the meaning of the article 31 of the REACH regulation n° 1907-2006. In consequence, its supply is purely facultative. It enables to communicate the risks related to the processing of the article.

This sheet supplements but does not replace instruction manuals. The information contained herein is given to the best of our knowledge concerning the article indicated on the date on which it was updated. Information is provided in good faith.

Attention of users is also drawn to possible risks which may arise if the article is applied for purposes other than those for which it has been designed.

This sheet does not in any way exempt the user from knowing and complying with all the regulatory texts applying to his or her activity. The user takes full responsibility for knowing and taking the precautions related to the use of the article. References to regulatory provisions are given to assist the user in fulfilling the obligations incumbent on persons using a dangerous preparation.

All local and international measures and provisions which could apply should be referred to.

Attention of users is drawn to the possible existence of other provisions supplementing these rules.



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This list is not to be taken as comprehensive. It does not exempt the user from ensuring that obligations under texts other than those to which reference is made do not apply to the detention and use of the article, for which the user alone is responsible.