

<b>Material Safety Data Sheet</b>	<b>№ 6 / 3 /DS-2007</b>	Date: 05.02.2007
<b>Steel carbon spring wire</b>		Revision: 3
		Date of revision: 19.08.2015
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<b>1. Identification of material and company details</b>	
<b>1.1 Commercial name:</b>	Steel carbon spring wire
<b>1.2 Application:</b>	for manufacturing of springs twisted in the cold state and not subjected to hardening
<b>1.3 Manufacturer / supplier:</b>	<b>Open Joint Stock Company «Byelorussian Steel Works- management company of “Byelorussian Metallurgical company” holding»</b> 37 Promyshlennaya st., 247210 Zhlobin, Gomel Region, Republic of Belarus Tel.: + 375 (2334) 2-29-93 Fax: + 375 (2334) 2-42-61
<b>2 Composition / components information:</b>	
<b>2.1 General description:</b>	Steel carbon spring wire is steel wire
<b>2.2 Chemical composition of steel for manufacturing of carbon spring wire:</b>	
<b>Element</b>	<b>Mass concentration of element, %</b>
Iron, not less	97,0
Carbon, not more	0,95
Manganese, not more	0,60
Silicon, not more	0,37
Copper, not more	0,20
Chromium, not more	0,10
Nickel, not more	0,15
<b>3 Possible hazards:</b>	
<b>3.1 Classification of European Community (EC)</b>	This product is not hazardous according to the Directive 1999/45/EC
<b>3.2 Special hazard for people and environment:</b>	no
<b>3.3 Emergency situation:</b>	exclude
<b>3.4 Physical configuration::</b>	solid material
<b>3.5 Odour:</b>	absent
<b>3.6 Potential hazards for health</b>	
<b>Influence:</b>	<b>Protective measures:</b>
Inhalation	exclude
Contact with skin	use protective gloves
Contact with eyes	use protective spectacles
<b>4 First aid measures</b>	No special procedures are required for this product.
<b>5 Fire safety measures</b>	
Special influence method:	material is not combustible
Special kind of danger:	absent

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**6 Measures during spillage or leakage**

<b>6.1 Personal protection:</b>	exclude
<b>6.2 Environmental protection:</b>	exclude
<b>6.3 Cleaning / absorption / neutralization:</b>	exclude

**7 Handling and storage measures****7.1 Handling:**

Safe handling	unknown
Explosion and fire safety	unknown

**7.2 Storage**

Requirements	Avoid moisture, acid effects and other things affecting to corrosion.
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**8 Safety measures****8.1 Engineering measures:**

Small flying particles produced during welding, cutting, grinding and annealing of steel carbon spring wire can cause injury of eyes.

**8.2 Maximum allowable concentration of materials**

State Standard 12.1.005-88 "General hygiene and sanitary demands to the working area air".

**Name of materials****Maximum allowable concentration (mg/m<sup>3</sup>)**

Welding spray	6,0
Carbon oxide	20
Nitric oxide	2,0
Dust with oxide silicon content (more than 10%)	2,0
Chromium oxide	1,0
Copper	1,0
Manganese	0,2
Nickel	0,05

**8.3 Equipment for personal protection****Hands protection**

Protective gloves are to be used while working with steel carbon spring wire.

**Eyes protection**

Protective spectacles are to be used while working with steel carbon spring wire

**9 Chemical and physical properties**

Physical state:	solid
Colour:	steel
Odour:	absent
pH:	not applicable
Melting point:	1485-1538°C (2705-2800°F)
Flash point:	not applicable
Explosive characteristic:	not applicable
Water solubility:	insoluble
Specific density:	7,85 kg/dm <sup>3</sup>

## Steel carbon spring wire

**10 Stability and chemical activity**

On normal environmental conditions steel carbon spring wire is a stable product. There is no risk of ignition or explosion

The product shouldn't be in contact with moisture, acids and other agents affecting metal corrosion.

**11 Toxicity**

There is no data about toxicity of the product.

Inhalation of smoke fumes while welding, cutting, grinding and annealing of steel carbon spring wire can cause eyes and respiratory apparatus irritation if the ventilation system and respirator are not used. During the prolonged and frequent contact with steel carbon spring wire skin irritation is theoretically possible for people with skin sensitive to some components of the product. But there are no references to such cases in special literature.

**12 Environmental impact**

Steel carbon spring wire is a secure product in case of correct application, storage and utilization.  
Steel carbon spring wire is stable in normal condition and it virtually doesn't decompose.

**13. Utilization and waste disposal**

To utilize according to the Legislative regulations of consumer's country.

**14 Rules of transportation**

Safety data sheet according to REACH - Provision (EC) № 1907/2006.

This product is not dangerous during international transportation (by land, by sea, by air).

In accordance with the criteria of EC Directive 67/548/EEC and corresponding annexes marking is not required.

**15 Normative information**

According to the Directive, this product is not classified as dangerous.

According to the Directive 67/548/EEC and its Modifications steel carbon spring wire is a product (finished product); it is not a substance or agent.

**16 Additional information**

In the quality certificate.

This document has the information about safety, health, hygiene and ecology; it's catered for people who work with steel carbon spring wire.

This information is based on our knowledge and may be used for exact maintenance of safety measures while using steel carbon spring wire.

The information provided in this document does not guarantee quality parameters of the product.

OJSC «BSW- management company of "BMC" holding» bears no responsibility for incorrect use of steel carbon spring wire and/or this information.

Chief of Technical department



S.V. Terletski

Coordinated with:

Deputy chief engineer on LP Dpt, IS Dpt and environment protection department



V.V. Efimenko