



**Subject: Tech. Inf. 2016-01**  
**The latest updated IMSBC CODE**

Number: 32/94/0088  
Date: 17.01.2016

**موضوع: اطلاعیه فنی ۲۰۱۶-۰۱**  
**آخرین تغییرات IMSBC CODE**

شماره: ۳۲/۹۴/۰۰۸۸  
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With gratitude, respectfully,  
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آخرین فایل دریافتی در خصوص IMSBC CODE و مطالب مربوطه در قالب اطلاعیه فنی حضورتان ایفاد می گردد.

در صورت هر گونه تغییر، این اطلاعیه فنی بروز رسانی خواهد شد.

این بخشنامه به انضمام پیوست های تکمیلی آن در بخش CLD از شبکه داخلی موسسه با آدرس ذیل قابل دسترسی می باشد.

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**رضوان پناه**

**مدیر واحد کنوانسیون ها و مقررات دریایی**

**موسسه رده بندی ایرانیان**

ترک دعوی: اگرچه در گردآوری کلیه راهنماهای فنی ارائه شده توسط موسسه رده بندی ایرانیان، تا حد ممکن تلاش در دقت و صحت محتوا صورت گرفته است، این موسسه متحمل مسئولیتی در قبال هرگونه اشتباهات، خسارت های احتمالی و جرائمی که ممکن است در ارتباط با بکار گیری مفاهیم و مطالب ارائه شده رخ دهد، نمی باشد.

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a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w		
CARGOES	IMO class	UN No.	Group	Stowage	NO SMOKING sign	Ventilation	SCBA	Protective clothing	Bulge line	Explosion protected electrical equipment	Dual purpose nozzle	A jets of water	Heating arrangement	SOLAS Reg II-2/54.2 or 19.3										FFEA (SOLAS Reg II-2/10.7.1.3)
														Remote control of fire pump	A jets of water	Explosion protected electrical equipment	Mechanical ventilation	Safe type fan	Natural ventilation	Personnel protection	A-60 insulation			
AMMONIUM NITRATE	5.1	1942	B	A	Yes		Yes	Yes		IS		Yes	N1 or N2	X	X	X		X <sup>a</sup>	X	X	X	(Yes)		
AMMONIUM NITRATE-BASED FERTILIZER	5.1	2067	B	A	Yes		Yes	Yes		IS		Yes	N1 or N2	X	X	X		X <sup>a</sup>	X	X	X	(Yes)		
AMMONIUM NITRATE-BASED FERTILIZER	9	2071	B	A	Yes		Yes	Yes		IS		Yes	N1 or N2	X	X	X		X <sup>a</sup>	X	X	X	(Yes)		
AMMONIUM NITRATE-BASED FERTILIZER (non-hazardous)			C	A	Yes		Yes	Yes		IS		Yes	N1 or N2											
ALUMINA HYDRATE	MHB		A and B				Yes	Yes																
ALUMINIUM SMELTING / REMELTING BY-PRODUCTS, PROCESSED	MHB		A and B	G	Y	ML			F													Yes		
CLINKER ASH, WET	MHB		A and B					Yes																

Table A - Cargoes newly added and Cargoes for which requirements on construction/equipment are added (IMSBC Code (2014 Edition))

Revised points are shown in red.



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a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	
CARGOES	IMO class	UN No.	Group	Stowage	NO SMOKING sign	Ventilation	SCBA	Protective clothing	Bilge line	Explosion protected electrical equipment	Dual purpose nozzles	4 jets of water	Heating arrangement	SOLAS Reg II-2/54.2 or 19.3									
														Remote control of fire pump	4 jets of water	Explosion protected electrical equipment	Mechanical ventilation	Safe type fan	Natural ventilation	Personnel protection	A-60 insulation	FFEA (SOLAS Reg II-2/10.7.1.3)	
COAL TAR PITCH	MHB		B					Yes															
COARSE IRON AND STEEL SLAG AND ITS MIXTURE			C																				
CRUSHED CARBON ANODES			C																				
GRAIN SCREENING PELLETS			C																				
GRANULATED NICKEL MATTE (LESS THAN 2% MOISTURE CONTENT)	MHB		B				Yes	Yes															
GYPSUM GRANULATED			C																				
ILMENITE (ROCK)			C																				
ILMENITE (UPGRADED)			A																				
METAL SULPHIDE CONCENTRATES	MHB		A and B				Yes															Yes <sup>1</sup>	
NICKEL ORE			A																				
SAND, HEAVY MINERAL			A																				
SILICON SLAG			C																				

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w		
CARGOES	IMO class	UN No.	Group	Stowage	NO SMOKING sign	Ventilation	SCBA	Protective clothing	Bilge line	Explosion protected electrical equipment	Dual purpose nozzles	4 jets of water	Heating arrangement	SOLAS Reg II-2/54.2 or 19.3										FFEA SOLAS Reg II-2/10.7.1.3
														Remote control of fire pump	4 jets of water	Explosion protected electrical equipment	Mechanical ventilation	Safe type fan	Natural ventilation	Personnel protection	A-60 insulation			
SOLIDIFIED FUELS RECYCLED FROM PAPER AND PLASTICS	MHB		B					Yes														Yes		
WOOD TORREFIED	MHB		B				Yes															Yes		

Table A - Cargoes newly added and Cargoes for which requirements on construction/equipment are added (IMSBC Code (2014 Edition))

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**The contents of each column in the Table A are as follows.**

**1. CARGOES (column “a”):**

Bulk Cargo Shipping Names are expressed in capital letters and identifies a bulk cargo during transport by sea.

**2. IMO class (column “b”):**

Group B cargoes are categorized into the following classes.

Class 4.1 : Flammable solids

Class 4.2 : Substances liable to spontaneous combustion

Class 4.3 : Substances which, in contact with water, emit flammable gases

Class 5.1 : Oxidizing substances (agents)

Class 7 : Radioactive materials

Class 9 : Miscellaneous dangerous substances and articles

MHB : Materials which may possess chemical hazards when transported in bulk other than materials classified as dangerous goods in the IMDG Code.

**3. UN No. (Column “c”):**

This is a 4-digit number assigned to a particular dangerous substance included in the dangerous substance list (approximately 3,000 items) within the United Nations Recommendations on the Transport of Dangerous Goods issued by the United Nations Committee of Experts on the Transport of Dangerous Goods.

**4. Group (column “d”):**

A: Group A consists of cargoes which may liquefy if shipped at moisture content in excess of their transportable moisture limit.

B: Group B consists of cargoes which possess a chemical hazard which could give rise to a dangerous situation on a ship.

C: Group C consists of cargoes which are neither liable to liquefy (Group A) nor to possess chemical hazards (Group B).

**5. Stowage (column “e”):**

A : Bulkheads to the engine room are to be insulated to A-60 standard.

F : Boundaries of components are to be resistant to fire and passage of water.

G : Bulkheads to the engine room are to be of gastight.

**6. NO SMOKING sign (column “f”):**

Yes : “NO SMOKING” signs are to be posted on decks and in areas adjacent to cargo compartments.

**7. Ventilation (column “g”):**

**N:** Natural ventilation system is to be provided for cargo holds.

**Nm:** Natural or mechanical ventilation system is to be provided for cargo holds.

**M:** Mechanical ventilation system is to be provided for cargo holds.

**ML:** At least two mechanical ventilation fans are to be provided for cargo holds. The total ventilation is to be at least six air changes per hour. Ventilation openings are to comply with the requirements of the Load Line Convention as amended for openings not fitted with means of closure.

**Sa:** Ventilation fans are to be safe for use in a flammable atmosphere.

**Sp:** Spark-arresting screens (wire mesh guards with max. 13mm X 13mm) are to be fitted to ventilation openings.

**8. SCBA (column “h”):**

Yes: Two self contained breathing apparatuses with 200% spare cylinders are to be additionally provided.

**9. Protective clothing resistant to chemical attack (column “i”)**

Yes : Four sets of protective clothing which consists of a pair of gloves, boots, a protective clothing and helmet with goggles are to be additionally provided.

**10. Bilge line (column “j”):**

F : In case where bilge lines are led to machinery space, bilge line is to be isolated either by fitting a blank flange or by a closed lockable valve.

N : A notice is to be placed adjacent to the valve warning against opening without the master’s permission.

**11. Electrical equipment (column “k”)**

Not suitable explosion protected type electrical equipment are to be disconnected (by removal of links in the system, other than fuses) from the power source at a point external to the space.

**IIAT2:** Electrical equipment having an explosion protection grade of IIAT2 or upwards are considered as suitable explosion protected type electrical equipment.

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**IIAT3:** Electrical equipment having an explosion protection grade of IIAT3 or upwards are considered as suitable explosion protected type electrical equipment.

**IIAT4:** Electrical equipment having an explosion protection grade of IIAT4 or upwards are considered as suitable explosion protected type electrical equipment.

**IICT1:** Electrical equipment having an explosion protection grade of IICT1 or upwards are considered as suitable explosion protected type electrical equipment.

**IICT2:** Electrical equipment having an explosion protection grade of IICT2 or upwards are considered as suitable explosion protected type electrical equipment.

**IS:** Intrinsically safe type electrical equipment are considered as suitable explosion protected type electrical equipment.

**12. Dual purpose nozzles (column "I"):**

**Yes :** Nozzles provided with fire hoses are to be of dual-purpose type (i.e., spray/jet type).

**13. 4 jets of water (column "m"):**

**Yes :** The quantity of water delivered is to be capable of supplying four nozzles at pressure as specified in SOLAS regulation and being trained on any part of the cargo space when empty.

**14. Heating Arrangement (column "n"):**

**N1 :** The means to disconnect heating arrangements for the tank(s) are to be provided.

**N2 :** The means to monitor and control the temperature of boundary between the tank(s) and cargo space loading the cargo so that it does not exceed 50°C are to be provided.

**15. Requirements of SOLAS Reg.II-2/54.2 (Reg.II-2/19.3 on or after 2000 amendments) (column "o" ~ "v")**

**X :** Applicable.

**16. FFEA (SOLAS Reg.II-2/10.7.1.3) (column "w"):**

**Yes:** Fixed CO2 fire extinguishing system for cargo holds are required by SOLAS Reg.II-2/10.7.1.3.

**(Yes):** Fixed gas fire-extinguishing system is ineffective and for which a fixed fire-extinguishing system giving equivalent protection shall be available. According to the Unified Interpretation of IMO, water supplies defined in SOLAS Reg.II-2/19.3.1.2 are considered as the alternative of a fixed gas fire-extinguishing system in cargo spaces.

**General notes:**

- For the detailed requirements of the IMSBC Code, the relevant part of the Code should be referred to.
- The application of the requirements of SOLAS Reg.II-2/54.2 or 19.3 is shown just for ready reference. For the detailed

requirements, the relevant part of the SOLAS should be referred to.

- Blank columns mean "Not applicable".

**Notes :**

1. CASTER MEAL, CASTER POMACE and CASTER FLAKE shall not be carried in bulk.
2. For the planned voyage not exceeding 5 days from the commencement of loading to the completion of discharge, the vessel may be exempted from the requirements of FFEA.
3. Consideration shall be given to providing the vessel with the means to top up the cargo spaces with additional supplies of inert gas taking into account the duration of the voyage. The ship's fixed CO2 fire extinguishing system shall not be used for this purpose.
4. Only applicable to Industrial sand coated with resin.
5. Only applicable to Seedcake containing solvent extractions only.
6. Fine grained sulphur (flowers of sulphur) shall not be transported in bulk.
7. With moisture content of 15% or more, the vessel may be exempted from the requirements of FFEA.
8. Only suitable wire mesh guards are required.
9. Except Metal Sulphide Concentrate considered as presenting a low fire-risk.

**ANNEX**

**TABLE 1**

**LIST OF SOLID BULK CARGOES FOR WHICH A FIXED  
GAS FIRE-EXTINGUISHING SYSTEM MAY BE EXEMPTED**

**1- Cargoes including, but not limited to, those listed in regulation II-2/10:**

Ore  
Coal (COAL and BROWN COAL BRIQUETTES)  
Grain  
Unseasoned timber

**2- Cargoes listed in the International Maritime Solid Bulk Cargoes (IMSBC) Code, which are not combustible or constitute a low fire-risk, as follows:**

- 1- all cargoes not categorized into Group B in the IMSBC Code; and
- 2- the following cargoes categorized into Group B in the IMSBC Code:

ALUMINA HYDRATE  
ALUMINIUM SMELTING BY-PRODUCTS, UN 3170  
(Both the names ALUMINIUM SMELTING BY-PRODUCTS or ALUMINIUM  
REMELTING BY-PRODUCTS are in use as proper shipping name)  
ALUMINIUM FERROSILICON POWDER, UN 1395  
ALUMINIUM SILICON POWDER, UNCOATED, UN 1398  
CALCINED PYRITES (Pyritic ash)  
CLINKER ASH, WET  
COAL TAR PITCH  
DIRECT REDUCED IRON (A) Briquettes, hot molded  
FERROPHOSPHORUS (including briquettes)  
FERROSILICON, with more than 30% but less than 90% silicon, UN 1408  
FERROSILICON, with 25% to 30% silicon, or 90% or more silicon  
FLUORSPAR (calcium fluoride)  
GRANULATED NICKEL MATTE (LESS THAN 2% MOISTURE CONTENT)  
LIME (UNSLAKED)  
LOGS  
MAGNESIA (UNSLAKED)  
PEAT MOSS

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PETROLEUM COKE\*  
PITCH PRILL  
PULP WOOD  
RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY MATERIAL (LSA-1),  
UN 2912 (non-fissile or fissile – excepted)  
RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECT(S)  
(SCO-I or SCO-II), UN 2913 (non-fissile or fissile – excepted)  
ROUNDWOOD  
SAW LOGS  
SILICOMANGANESE  
SULPHUR, UN 1350  
TIMBER  
VANADIUM ORE  
WOODCHIPS, with moisture content of 15% or more  
ZINC ASHES, UN 1435

\*

When loaded and transported under the provisions of the IMSBC Code.

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- 3- Cargoes assigned to the following generic Group B shipping schedules when they do not exhibit any self-heating, flammability, or water-reactive flammability hazards in accordance with the MHB tests and classification criteria contained in the Code:

**METAL SULPHIDE CONCENTRATES**

- 4- Solid bulk cargoes which are not listed in the IMSBC Code, provided that:

- .1 They are assessed in accordance with section 1.3 of the Code;
- .2 They do not present hazards of Group B as defined in the Code; and
- .3 A certificate has been provided by the competent authority of the port of loading to the master in accordance with 1.3.2 of the Code.



**TABLE 2**

**LIST OF SOLID BULK CARGOES FOR WHICH A FIXED GAS FIRE-EXTINGUISHING  
SYSTEM IS INEFFECTIVE AND FOR WHICH A FIRE-EXTINGUISHING SYSTEM  
GIVING EQUIVALENT PROTECTION SHALL BE AVAILABLE**

**The following cargoes categorized into Group B of the IMSBC Code:**

ALUMINIUM NITRATE, UN 1438  
AMMONIUM NITRATE, UN 1942 (with not more than 0.2% total combustible material, including any organic substance, calculated as carbon to the exclusion of any other added substance)  
AMMONIUM NITRATE BASED FERTILIZER, UN 2067  
AMMONIUM NITRATE BASED FERTILIZER, UN 2071  
BARIUM NITRATE, UN 1446  
CALCIUM NITRATE, UN 1454  
LEAD NITRATE, UN 1469  
MAGNESIUM NITRATE, UN 1474  
POTASSIUM NITRATE, UN 1486  
SODIUM NITRATE, UN 1498  
SODIUM NITRATE AND POTASSIUM NITRATE, MIXTURE, UN 1499