Subject

Application of IMSBC Code 4th amendment



No. TEC-1143 Date 22 December 2017

To whom it may concern

With regard to application of IMSBC Code 4th amendment, please be informed as follows.

The IMSBC Code amended by IMO Resolution MSC.426 (98) is referred to as "IMSBC Code 4th amendment" in this Technical Information. The current IMSBC Code ("IMSBC Code (2015 Edition)") based on IMSBC Code 3rd amendment previously informed in ClassNK Technical Information No.TEC-1057 is referred to as "IMSBC Code (2015 Edition)" in this Technical Information also. Due to the release of this Technical Information, previous ClassNK Technical Information No.TEC-0979 dated 22 January 2014 and ClassNK Technical Information No.TEC-1014 dated 20 November 2014 are revoked.

1. Amendment of IMSBC Code

The revised IMSBC Code (IMSBC Code 4th amendment) was adopted by IMO Maritime Safety Committee 98th session (MSC98) held in June 2017 and individual schedules of each cargo were amended.

IMSBC Code 4th amendment will enter into force on or after 1 January 2019 and is mandatory for all ships that load solid bulk cargoes.

- Guidance for application of IMSBC Code fitness certificate Regarding IMSBC Code (4th amendment) fitness certificate, please refer to the attachment 1."Guidance for application of IMSBC Code (4th amendment) fitness certificate".
- 3. Cargoes newly added

Please note that there are cargoes newly added in IMSBC Code (4th amendment) that were not in IMSBC Code (2015 Edition). Please refer to attachment 2."Table G1 - Cargoes newly added and requirements on construction/equipment (IMSBC Code (4th amendment))".

(To be continued)

NOTES:

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- 4. Application of IMSBC Code (4th amendment) on voluntary basis IMSBC Code fitness certificate in accordance with IMSBC Code (4th amendment) may be issued upon requests from owners/shipbuilders as voluntary basis from 1 January 2018. For cargoes listed in Table G1 as 'Group A and B' or 'Group B', IMSBC Code (4th amendment) fitness certificate will be issued in case where ships comply with requirements in Table G1. Onboard survey may be necessary to issue the certificate in some cases, therefore, if you need more information, please contact to ClassNK Material and Equipment Department (EQD). Furthermore, in case where METAL SULPHIDE CONCENTRATES CORROSIVE (IMO class 8, UN No.1759) listed in the Table G1 is included in IMSBC Code fitness certificate for the carriage of the cargo, certificate of fitness for ship carrying dangerous goods (DG certificate) also shall be revised for including the cargo since the cargo is categorized as dangerous goods.
- 5. Revision of the exemption certificate for Fixed Gas Fire-Extinguishing system (FFEA)
 - (1) FFEA is exempted for loading following cargoes under IMSBC Code (4th amendment) and MSC.1/Circ.1395/Rev.3 (Please refer to attachment 3.).
 - FERROSILICON with at least 25% but less than 30% silicon, or 90% or more silicon
 - METAL SULPHIDE CONCENTRATES, CORROSIVE (Low fire risk)
 - MONOAMMONIUM PHOSPHATE (M.A.P.), MINERAL ENRICHED COATING
 - MONOCALCIUMPHOSPHATE (MCP)
 - SAND, MINERAL CONCENTRATE, RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-I)

For ships which FFEA is exempted, if the above mentioned cargoes are loaded, it is necessary to rewrite the exemption certificate, in order to add these cargoes names in list of cargoes attached to the certificate.

- (2) In case where a full term exemption certificate has been issued by ClassNK, new exemption certificate is issued by ClassNK
- (3) In case of Panamanian flagged ships, it is necessary for ship owner or management company to apply the issuance of full term exemption certificate to Panamanian Administration directly within 30 days after ClassNK issue the interim exemption certificate.
- (4) In case of Liberian flagged ships, the issuance of the full term exemption certificate will be requested to Liberian Administration by ClassNK, upon the issuance of the interim exemption certificate.
- (5) In case where a full term exemption certificate is issued by the flag Administration except Panamanian and Liberian Administrations, it is necessary for ship owner or management company to apply the issuance of exemption certificate to the Administration directly.

(To be continued)

For any questions about the above, please contact:

[IMSBC Co	de fitness certificate and related questions]
NIPPON KA	AIJI KYOKAI (ClassNK)
Material and	d Equipment Department, Administration Center Annex, Head Office
Address:	3-3 Kioi-cho, Chiyoda-ku, Tokyo 102-0094, Japan
Tel.:	+81-3-5226-2020
Fax:	+81-3-5226-2057
E-mail:	eqd@classnk.or.jp

[Exemption certificate from Fixed Gas Fire-extinguishing system]Classification Department, Information Center, Head OfficeAddress:1-8-5 Ohnodai, Midori-ku, Chiba 267-0056, JapanTel.:+81-43-294-5784Fax:+81-43-294-5449E-mail:cld@classnk.or.jp

Attachment:

- 1. Guidance for application of IMSBC Code (4th amendment) fitness certificate
- 2. Table G1 Cargoes newly added and requirements on construction/equipment (IMSBC Code (4th amendment))
- 3. Table 1, LIST OF SOLID BULK CARGOES FOR WHICH A FIXED GAS FIRE-EXTINGUISHING SYSTEM MAY BE EXEMPTED - MSC.1/Circ.1395/Rev.3

Guidance for application of IMSBC Code (4th amendment) fitness certificate

0101 General

Under the IMSBC Code, solid bulk cargoes are classified as follows

(1) Cargoes likely to liquefy (Group A)

(2) Cargoes having chemical hazard (Group B)

(3) Cargoes other than formers (Group C).

In this guidance, they are referred to as "Group A cargoes", "Group B cargoes" and "Group C cargoes" respectively.

0102 Requirements for construction and equipment

- -1. A loading manual and a stability information booklet approved by ClassNK are required to be provided onboard regardless of the types of cargoes intended to be carried.
- -2. In case where the moisture content of Group A cargoes exceeds the transportable moisture limit, the cargo is to be carried by the specially constructed or fitted cargo ship designed portable divisions or permanent structural boundaries to confine any shift of cargo. For details, please refer to IMSBC Code Section 7.
- -3. The requirements for the carriage of Group B cargoes except COAL and BROWN COAL BRIQUETTES, please refer to Table 1.1 and 1.2. The requirements for the carriage of COAL and BROWN COAL BRIQUETTES, please refer to Table 1.3.
- *Note 1.1:* The Code provides special requirements for construction and equipment for fire protection and personnel protection as well as operational precautions and information on properties of each material.
- Note 1.2: The applications of the requirements of SOLAS74 Reg.II-2/53 and 54 for carriage of dangerous goods (Reg.II-2/10.7 and 19 under SOLAS2000) are also shown in Table 1.1 for convenience sake.

0103 Application

- -1. Applicant, the ship owner or their representative, or the shipbuilder, should submit an application containing the information on the items listed below to ClassNK local office in charge or Material and Equipment Department (EQD) prior to the survey onboard the ship. (Please refer to 0104)
 - (1) List of cargoes to be included in the IMSBC Code fitness certificate (Group A cargoes, Group C cargoes and/or Group B cargoes. In case where the Group B cargoes are included, it is necessary to submit the list of Group B cargoes to EQD.)
 - (2) In case where a survey onboard the ship is required, expected date and place of the survey and local agent to contact (only for existing ship)
 - (3) A list of documents submitted together with the application and of those expected to be submitted later, if any.
- -2. In case where dangerous goods having the UN No. are included in the cargoes, the applicant should also apply for the issue of a certificate of compliance with the requirements of SOLAS74 Reg.II-2/54 (*Reg.II-2/19 under SOLAS2000*) as necessary.

0104 Submission of documents

-1. In case where the certification is requested for the carriage of Group B cargoes, the applicant should submit the documents as shown in Table 1.4 (other than COAL and BROWN COAL BRIQUETTES) and/or Table 1.5 (COAL and BROWN COAL BRIQUETTES) to ClassNK local office or EQD. For existing ships, if ClassNK concludes that the condition of the ship's compliance with the requirements can be checked by the survey onboard, submission of documents and documents examination may be omitted. If it is not clear whether the submission of documents and documents examination are necessary or not, please contact to EQD.

-2. In case where the certification is requested for the carriage of Group A cargoes without appropriate restrictions on their moisture contents, the applicant should submit three sets of relevant structural drawings, stability calculations and other documents considered necessary by ClassNK to EQD.

0105 Document examination, survey and issue of certificate

After documents examination at EQD (if necessary) and survey on board conducted at ClassNK local office, IMSBC Code fitness certificate will be issued.

0106 Renewal and rewriting of the certificate

-1. Rewriting of IMSBC Code fitness certificate due to the inclusion of Group A and B and/or Group B cargoes shown in Table G1 In case where there are no additional requirements (the survey on board is not required),

In case where there are no additional requirements (the survey on board is not required), application and list of cargoes should be submitted to EQD. In case that there are additional requirements (the survey on board is required.), application and list of cargoes should be submitted to ClassNK local office or EQD.

- -2. Renewal of IMSBC Code fitness certificate Document examination at EQD is not required. Application should be submitted to ClassNK local office.
- -3. Rewriting of IMSBC Code fitness certificate due to change of flag or ship's name . Document examination at EQD is not required. Application should be submitted to ClassNK local office.

Requirements of construction and equipment for individual cargoes

under the provisions of the IMSBC Code (4th amendment) and SOLAS Reg.II-2/54.2 (Reg.II-2/19.3 on or after 2000 amendments)

under the provisions of the				lument	Í				-4134	1.2 (Reg	.11-2	/1/.5		anter 2	2000 6			15)				
a	b	с	d	e	f	g	h	i	j	k	1	m	n	0	р	q	r	s	t	u	v	w
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																						1.3)
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														m		iti						/10
CARGOES														fire pump		elec	n					11-2
					sign			00		ed	nozzles		lent	f fir		eq	ventilation		u	ion		60 Gd
					US US			clothing		n protected equipment	zou		gem	l of		tect	ntil		ventilation	protection	ц	SR
					SMOKING			clot		prot quij	se i	tter	ang	ntrc	tter	prot	l ve	fan	ntil£	orot	atio	LA.
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	MO class	Ĩ	Group	Stowage	Ŋ	Ventilation	SCBA	Protective	Bilge line	Explosion protected electrical equipment	Dual purpose	4 jets of water	Heating arrangement	Remote control	4 jets of water	Explosion protected electrical equipment	Mechanical	Safe	Natural	Personnel	A-60 insulation	FEA (SOLAS Reg.II-2/10.7.1.3)
ALFALFA			C	S	Z	>	S	Ч	В	ы. Э	Д	4	Ξ	× 2	4	ша	2	S	Z		4	щ
ALUMINA			С																			
ALUMINA, CALCINED			С																			
ALUMINA HYDRATE	MHB		A and B				Y	Y														
ALUMINA SILICA			С																			
ALUMINA SILICA, pellets			С																			
ALUMINIUM FERROSILICON POWDER	4.3	1395	В	A, G	Y	ML,Sa	Y			IICT2						Х	Х	Х	Х	Х	Х	
ALUMINIUM FLUORIDE			A												-							
ALUMINIUM NITRATE	5.1	1438	B			10.0	Y	Y		TI CITO	Y	Y		Х	Х				X	X		(Yes)
ALUMINIUM SILICON POWDER, UNCOATED	4.3	1398	В	A, G	Y	ML,Sa	Y			IICT2						X	Х	Х	Х	Х	Х	
ALUMINIUM SMELTING BY-PRODUCTS or ALUMINIUM REMELTING BY-PRODUCTS	4.3	3170	В	A, G	Y	ML,Sa	Y			IICT2						Х	Х	Х	Х	Х	Х	
ALUMINIUM SMELTING / REMELTING BY-PRODUCTS,	MHB		A and B	G	Y	ML			F													Yes
PROCESSED				-					•									9				
AMMONIUM NITRATE	5.1	1942	В	Α	Y		Y	Y		IS		Y	N1	Х	Х	Х		X ⁸	Х	Х	Х	(Yes)
AMMONIUM NITRATE BASED FERTILIZER (Type A)	5.1	2067	В	А	Y		Y	Y		IS		Y	N1 or N2	Х	Х	Х		X ⁸	Х	Х	Х	(Yes)
AMMONIUM NITRATE BASED FERTILIZER (Type B)	9	2071	В	А	Y		Y	Y		IS		Y	N1 or N2	Х	Х	Х		X^8	Х	Х	Х	(Yes)
AMMONIUM NITRATE BASED FERTILIZER (non-hazardous)			С	А	Y		Y	Y		IS		Y	N1 or N2									
AMMONIUM SULPHATE	<u> </u>		С										112					<u> </u>				
AMMONIOM SULFHATE AMORPHOUS SODIUM SILICATE LUMPS	MHB		B																			
ANTIMONY ORE AND RESIDUE	min		C															<u> </u>				
BARIUM NITRATE	5.1	1446	B			Nm	Y	Y			Y	Y		Х	Х				Х	Х		(Yes)
BARYTES	5.1	1110	C				-				-	-										(105)
BAUXITE	1		C		l																	
BIOSLUDGE	1		Č																			
BORAX (PENTAHYDRATE CRUDE)	1		С		l	1										İ		1			İ	
BORAX, ANHYDROUS, crude or refined			С																			
BORIC ACID	MHB		В																			
BROWN COAL BRIQUETTES	MHB		В				S	See Ta	able 1.	.3												

a	b	с	d	e	f	g	h	i	j	k	1	m	n	0	р	q	r	s	t	u	v	w
															S	OLAS	Reg.I	I-2/54.	2 or 19	0.3		
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	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)
CALCIUM NITRATE	5.1	1454	В				Y	Y			Y	Y		Х	Х				Х	Х		(Yes)
CALCIUM NITRATE FERTILIZER			С		1													1				
CARBORUNDUM			С																			
CASTOR BEANS ¹	9	2969	B			Nm	Y	Y			Y			Х	Х				Х	Х		Yes
CEMENT	-	2707	C				-	-			-											100
CEMENT CLINKERS			C																			
CHAMOTTE			C																			
CHARCOAL	MHB		B																			Yes
CHEMICAL GYPSUM	MILL		A																			105
CHOPPED RUBBER AND PLASTIC INSULATION			C																			Yes ²
CHROME PELLETS			C																			105
CHROMITE ORE			C																			
CLAY			C																			
CLINKER ASH	MHB		A and B					Y														
COAL	MHB		A and B						able 1.	3												
COAL SLURRY	WIIID		A			Ν																
COAL SLORNT COAL TAR PITCH	MHB		B			14		Y														
COARSE CHOPPED TYRES	WIIID		C					1						-								Yes ²
COARSE IRON AND STEEL SLAG AND ITS MIXTURE			C																			105
COKE			C																			
COKE BREEZE			A																			
COLEMANITE			C											-								
COPPER CONCENTRATE			A																			
COPPER GRANULES			C																			
COPPER MATTE			C]
COPPER SLAG			A		-		-									-						
COPRA (dry)	4.2	1363	B	А	Y	Nm	-							Х	Х	-			Х	Х	Х	Yes
CRUSHED CARBON ANODES	7.2	1505	C	А	1	1111	<u> </u>							Λ	Λ		<u> </u>		Λ	Λ	Λ	105
CRYOLITE			C				<u> </u>							<u> </u>			<u> </u>			<u> </u>		
DIAMMONIUM PHOSPHATE (D.A.P.)			C																			
DIRECT REDUCED IRON, (A)			-			Nm,																
Briquettes, hot-moulded	MHB		В	F	Y	Sp				IICT2												
DIRECT REDUCED IRON, (B)	1	<u> </u>	t _	-		~P																
Lumps, pellets, cold-moulded briquettes ³	MHB		В	F	Y					IICT2												Yes
DIRECT REDUCED IRON, (C)	MHB		В	F	Y		Y			IICT2												Yes
(By-product fines) ³	1	L	1		I		<u> </u>	L	l		I			l	l	L	I	<u> </u>		I		

a	b	с	d	е	f	g	h	i	j	k	1	m	n	0	р	q	r	s	t	u	v	w
															S	OLAS	Reg.I	I-2/54.2	2 or 19	.3		
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	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)
DISTILLERS DRIED GRAINS WITH SOLUBLES			č	U 1	~	- r	•1	-	_	ΠΨ		7			N	ц э		•1	~			
DOLOMITE			C	-	1												-	1			<u>├</u> ──┤	I
FELSPAR LUMP			C			L												1			\vdash	
FERROCHROME			C															-				
FERROCHROME exothermic			C																			
FERROMANGANESE			C																			
			C																		┝──┤	
FERRONICKEL	MID									HOTI								-			┝──┤	
FERROPHOSPHORUS (including briquettes)	MHB		В			ML, Sa	Y			IICT1												
FERROSILICON with 30% or more but less than 90% silicon (including briquettes)	4.3	1408	В	A, G	Y	ML,Sa	Y	Y	F,N	IICT1						Х	Х	Х	Х	Х	Х	
FERROSILICON with at least 25% but less than 30% silicon, or 90% or more silicon	MHB		В	G	Y	ML,Sa	Y		F,N	IICT1												
FERROUS METAL BORINGS, SHAVINGS, TURNINGS or CUTTINGS	4.2	2793	В	А	Y		Y							Х	Х				Х	Х	Х	Yes
FERROUS SULPHATE HEPTAHYDRATE			С															-				
			C																		┝──┤	
FERTILIZERS WITHOUT NITRATES (non-hazardous)			-																		$ \longrightarrow $	
FISH (IN BULK)		0016	A																			
FISHMEAL (FISHSCRAP), STABILIZED	9	2216	B			Nm	Y							Х	Х				Х	Х		Yes
FLUORSPAR	MHB		A and B																			
FLY ASH, DRY			C																			
FLY ASH, WET			Α																			
FOAM GLASS GRAVEL			С																			
GLASS CULLET			С																			
GRAIN SCREENING PELLETS			С																			
GRANULAR FERROUS SULPHATE			С																			
GRANULATED NICKEL MATTE (LESS THAN 2% MOISTURE CONTENT)	MHB		В				Y	Y														
GRANULATED SLAG			С															1				I
GRANULATE TYRE RUBBER			C		1													1				Yes ²
GYPSUM			C															1				
GYPSUM GRANULATED			C															<u> </u>			\vdash	
ILMENITE CLAY			A															<u> </u>			\vdash	l
ILMENTE (ROCK)			C			L												1			\vdash]
ILMENTE (ROCK)			A		-																\vdash	
ILMENTE SAND			A		-																├── ┤	
IRON AND STEEL SLAG AND ITS MIXTURE			A		-												-				\vdash	
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CARGOES No Y No Y SULAS Reg. 11-254 2 or 19-3 RON ORE NO NO Y NO	a	b	с	d	е	f	g	h	i	j	k	1	m	n	0	р	q	r	s	t	u	v	w
RON ORE Set of a solution of a s																S	OLAS	Reg.II	-2/54.2	2 or 19	.3		
RON ORE Set of a solution of a s																							
IRON ORE Image: Constraint of the second	CARGOES) class	No.	dn	wage	SMOKING sign	tilation	3A	tective clothing	ge line	olosion protected trical equipment	ıl purpose nozzles	ts of water	ting arrangement	of fire	ts of water	losion protected electrical ipment	chanical ventilation	e type fan	ural ventilation		0 insulation	ŝA (SOLAS Reg.II-2/10.7.1.3
IRON ORE C<		IM	S	Grc	Sto	<u>8</u>	Vei	SCI	Pro	Bil	Exp elec	Dui	4 je	Hea	Rer	4	Ex _j	Me	Saf	Nat	Per	A-6	EFI
IRON ORE PELLETS C C Nm Y ILAT2 Y X X X X X X X Y Y IRON OXIDE TECHNICAL IA A Nm Y IIAT2 Y X X X X X X Y Y IRON OXIDE TECHNICAL IA A C IIAT2 Y X X X X X X Y Y IRON SINTER C C IIAT2 Y X X X X X X X X X X Y IRON SINTER C C IIAT2 IIAT2 IIAT2 X X X X X X X X X X X X X X X IIAT2 IIIAT2 IIIAT2 IIIAT2 IIIIAT2 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	IRON ORE						· ·						7			ч					_		
IRON OXIDE, SPENT or IRON SPONGE, SPENT 4.2 1376 B A Nm Y Y IIAT2 Y X X X X X X X Y Y IIAT2 Y X X X X X X Y Y IIAT2 Y X X X X X X Y Y IIAT2 Y X Y Y X X X X X X X X Y Y X	IRON ORE FINES			А																			
IRON OXIDE TECHNICAL A	IRON ORE PELLETS			С																			
IRON SINTER C <thc< th=""> C <thc< th=""> C <thc< th=""> <thc< <="" td=""><td>IRON OXIDE, SPENT or IRON SPONGE, SPENT</td><td>4.2</td><td>1376</td><td>В</td><td>А</td><td></td><td>Nm</td><td>Y</td><td>Y</td><td></td><td>IIAT2</td><td>Y</td><td></td><td></td><td>Х</td><td>Х</td><td></td><td></td><td></td><td>Х</td><td>Х</td><td>Х</td><td>Yes</td></thc<></thc<></thc<></thc<>	IRON OXIDE, SPENT or IRON SPONGE, SPENT	4.2	1376	В	А		Nm	Y	Y		IIAT2	Y			Х	Х				Х	Х	Х	Yes
IRON SMELTING BY-PRODUCTS C <td></td> <td></td> <td></td> <td>А</td> <td></td>				А																			
IRON SMELTING BY-PRODUCTS C <td>IRON SINTER</td> <td></td> <td></td> <td>С</td> <td></td>	IRON SINTER			С																			
IRONSTONE C				С																			
LABRADORTE C C V				С																			
LEAD NITRATE 5.1 1469 B N Y Y X Y Y X X X X Y Y X X X Y Y Y X X X Y Y Y Y Y Y X X X Y Y Y Y X X X Y Y Y X X X Y Y Y				C																			
LEAD ORE C<		5.1	1469	-			Ν	Y	Y			Y	Y		X	Х				Х	Х		(Yes)
LIME (UNSLAKED) MHB B C Image: Construction of the state								-	-				-										(
LIMESTONE C C I <thi< th=""> I <thi< th=""> <thi< t<="" td=""><td></td><td>MHB</td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></thi<></thi<></thi<>		MHB		-																			
MAGNESIA (DEADBURNED) MHB B C Image: Constraint of the system of				С																			
MAGNESIA (DEADBURNED) MHB B C Image: Constraint of the system of	LINTED COTTON SEED	MHB		В				Y															Yes
MAGNESITE, natural C <thc< th=""> C <thc< th=""></thc<></thc<>																							
MAGNESITE, natural C <thc< th=""> C <thc< th=""></thc<></thc<>		MHB		В																			
MAGNESIUM NITRATE5.11474BYYYXX <th< td=""><td></td><td></td><td></td><td>С</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>				С																			
MAGNESIUM SULPHATE FERTILIZERSCCII		5.1	1474					Y	Y			Y	Y		Х	Х				Х	Х		(Yes)
MANGANESE COMPONENT FERROALLOY SLAGCCIII				С																			
MANGANESE ORECCIII <t< td=""><td></td><td></td><td></td><td>C</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>				C																			
MANGANESE ORE FINESAAA<				-																			
MARBLE CHIPSCCIII <th< td=""><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>				-																			
METAL SULPHIDE CONCENTRATESMHBA and BYIIIIIYIMETAL SULPHIDE CONCENTRATES, CORROSIVE81759A and BYYIIIIYYYMINERAL CONCENTRATESAAIIIIIIIYY </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>																							
METAL SULPHIDE CONCENTRATES, CORROSIVE81759A and BYYIIIIYYY <td></td> <td>MHB</td> <td></td> <td>A and B</td> <td></td> <td></td> <td></td> <td>Y</td> <td></td> <td>Yes⁹</td>		MHB		A and B				Y															Yes ⁹
MINERAL CONCENTRATESAAIII			1759						Y											Y	Y		
MONOAMMONIUM PHOSPHATE (M.A.P.)CCIIIIIIIIMONOAMMONIUM PHOSPHATE (M.A.P.), MINERAL ENRICHED COATINGMHBBYYYII <td< td=""><td></td><td>0</td><td>1107</td><td></td><td></td><td></td><td></td><td>-</td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td>-</td><td></td><td>100</td></td<>		0	1107					-	-											-	-		100
MONOAMMONIUM PHOSPHATE (M.A.P.), MINERAL ENRICHED COATINGMHBBYYPP <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>																							
ENRICHED COATINGMHBBYYOOOOMONOCALCIUMPHOSPHATE (MCP)MHBA and BYYOOOOO		_		-																			
MONOCALCIUMPHOSPHATE (MCP) MHB A and B Y Y I		MHB		В				Y	Y														
		MHB		A and B				Y	Y														
NICKEL ORE	NICKEL ORE							-	-														
OLIVINE SAND A Image: Constraint of the second sec																							
OLIVINE GRANULAR AND GRAVEL AGGREGATE PRODUCTS C <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>																							
PEANUTS (in shell)				-																			
PEAT MOSS MHB A and B Nm C C C C C C C C C C C C C C C C C C		MHB					Nm																
PEBBLES (sea)																							

a	b	с	d	e	f	g	h	i	j	k	1	m	n	0	р	q	r	s	t	u	v	w
															S	OLAS	Reg.I	I-2/54.	2 or 19	.3		
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	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)
PELLETS (concentrates)			C																			
PERLITE ROCK			С																			
PETROLEUM COKE (calcined or uncalcined)	MHB		В		1		Y	Y			Y							1				
PHOSPHATE (defluorinated)	1	1	С			1																
PHOSPHATE ROCK (calcined)			С																			
PHOSPHATE ROCK (uncalcined)			C																			
PIG IRON			C																			
PITCH PRILL	MHB		B			Nm	Y	Y			Y											
POTASH	WIIID		C			1111	1	1			1										├ ──┤	
POTASSIUM CHLORIDE			C																		┝───┤	
POTASSIUM NITRATE	5.1	1486	B				Y	Y			v	Y		Х	Х				Х	Х	⊢	(Yes)
POTASSIUM NITRATE POTASSIUM SULPHATE	3.1	1480	C B				I	I			I	I		Λ	Λ				Λ	Λ	⊢	(Tes)
			C																		<u> </u>	
PUMICE			-																		┢───┤	
PYRITE (containing copper and iron)			C																		\vdash	
PYRITES, CALCINED (Calcined Pyrites)	MHB		A and B																			
PYROPHYLLITE			C																			
QUARTZ			С																			
QUARTZITE			С																			
RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-I)	7	2912	В				Y	Y														
RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECTS (SCO-I)	7	2913	В				Y	Y														
RASORITE (ANHYDROUS)			С																		├ ──┤	
RUTILE SAND			C																		┝───┤	
SALT			C																		┝───┤	
			C											-							⊢	
SALT CAKE SALT ROCK			C		-																┝──┤	
			C		-																┝──┤	
SAND			-		-																┝──┤	
SAND, HEAVY MINERAL SAND, MINERAL CONCENTRATE, RADIOACTIVE MATERIAL,			A																		┢───┤	
LOW SPECIFIC ACTIVITY (LSA-I)	7	2912	A and B				Y	Y														
SAWDUST	MHB		В			Nm																Yes
SCALE GENERATED FROM THE IRON AND STEEL MAKING PROCESS			А																			
SCRAP METAL			С			Nm	<u> </u>	$\left - \right $				\vdash									┝──┤	
	4.2	1296	-			INIII	37					┢──┤		v	v				v	v	v	Ver
SEED CAKE (a)	4.2	1386	B	A	37	Nue C	Y			II A TO 5		$\left \right $		X	X	V 5	125	325	X	X	X	Yes
SEED CAKE (b)	4.2	1386	В	A ⁵	Y	Nm, Sp	Y			IIAT3 ⁵				Х	Х	X ⁵	X ⁵	X^5	Х	Х	Х	Yes

a	b	с	d	e	f	g	h	i	j	k	1	m	n	0	р	q	r	s	t	u	v	W
															S	OLAS	Reg.Il	[-2/54.]	2 or 19	.3		
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	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)
SEED CAKE	4.2	2217	В	Α	Y	Nm, Sp	Y			IIAT3				Х	Х	Х	Х	Х	Х	X	Х	Yes
SEED CAKE (non-hazardous)			С																			
SILICOMANGANESE (carbo-thermic)			С																			
SILICOMANGANESE (low carbon)	MHB		В		Y	M, Sa	Y			IICT1								1				
SILICON SLAG			С			,																
SODA ASH			C																			
SODIUM NITRATE	5.1	1498	B				Y	Y			Y	Y		Х	Х				Х	Х		(Yes)
SODIUM NITRATE AND POTASSIUM NITRATE MIXTURE	5.1	1499	B				Y	Y			Ŷ	Y		X	X				X	X		(Yes)
SOLIDIFIED FUELS RECYCLED FROM PAPER AND PLASTICS	MHB	1477	B				1	Y			1	1		21	21				11			Yes
SPODUMENE (UPGRADED)	WITD		A					1														105
STAINLESS STEEL GRINDING DUST			C																			
STAINLESS STEEL ORINDING DUST STONE CHIPPINGS			C			-																
SUGAR			C																			
	MHB		B				Y															V
SUGARCANE BIOMASS PELLETS	MHB						ľ															Yes
SULPHATE OF POTASH AND MAGNESIUM			C			27																
SULPHUR (formed, solid)		1050	C			Nm				TT 4 TT 4					••			 8				
SULPHUR (crushed lump and coarse grained) ⁶	4.1	1350	B	A	Y	Nm, Sp	Y			IIAT4				Х	Х	Х		X ⁸	Х	Х	Х	
SUPERPHOSPHATE			C																			
SUPERPHOSPHATE (triple, granular)			C																			
SYNTHETIC CALCIUM FLUORIDE			A																			
SYNTHETIC SILICON DIOXIDE			A																			
TACONITE PELLETS			С						-													
TALC			С																			
TANKAGE	MHB		В				Y															Yes
TAPIOCA			С																			
TITANOMAGNETITE SAND			Α																			
UREA			С																			
VANADIUM ORE	MHB		В				Y															
VERMICULITE			С																			
WHITE QUARTZ			С																			
WOODCHIPS	MHB		В				Y															Yes ⁷
WOOD PELLETS CONTAINING ADDITIVES AND/OR BINDERS	MHB		В				Y															Yes
WOOD PELLETS NOT CONTAINING ANY ADDITIVES AND/OR	MID		В				Y															
BINDERS	MHB		В				r															
WOOD PRODUCTS - GENERAL	MHB		В			Nm	Y															
WOOD TORREFIED	MHB		В	1	1		Y				1			1				1			1	Yes

a	b	с	d	e	f	g	h	i	j	k	1	m	n	0	р	q	r	s	t	u	v	w
															S	OLAS	Reg.I	[-2/54.	2 or 19	.3		
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	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)
ZINC ASHES	4.3	1435	В	Α	Y	ML,Sa	Y	Y		IICT2						Х	Х	Х	Х	Х	Х	
ZINC SLAG			С																			
ZIRCON KYANITE CONCENTRATE			А																			
ZIRCON SAND			С																			

The contents of each column in the Table 1.1 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 8 : Corrosive solid substances
 - 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 Unite 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 or to be isolated by the spaces (e.g. FOT, DOT, Void Space).
 - 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")
 - Y : "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. The height of coaming is to be equal to or more than regulated height (Position 1: 4.5 m, Position 2: 2.3 m).
 - 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")
 - Y : Two self contained breathing apparatuses with 200% spare cylinders are to be additionally provided.

- 9. Protective clothing resistant to chemical attack (column "i")
 - Y : 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.
- 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 "l")
 - Y : Nozzles provided with fire hoses are to be of dual-purpose type (i.e., spray/jet type).
- 13. 4 jets of water (column "m")
 - Y : 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 "n" ∼ "u") X : Applicable.
- 16. FFEA (SOLAS Reg.II-2/10.7.1.3) (column "v")
 - 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 ship may be exempted from the requirements of FFEA.

- 3. Consideration shall be given to providing the ship 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. (blank)
- 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 ship may be exempted from the requirements of FFEA.
- 8. Only suitable wire mesh guards are required.
- 9. Except Metal Sulphide Concentrates considered as presenting a low fire-risk.

IMSBC Code - Initial Checklist (for cargoes other than COAL and BROWN COAL BRIQUETTES)

Columns	Requirements	Result
	Stowage:	
e	□ Bulkheads to the engine room are to be insulated to A-60 standard or to be isolated by the spaces (e.g. FOT, DOT, Void Space).	
	□ Boundaries of components are to be resistant to fire and passage of water.	
	□ Bulkheads to the engine room are to be of gastight.	
f	NO SMOKING sign:	
1	□ "NO SMOKING" signs are to be posted on decks and in areas adjacent to cargo compartment.	
	Ventilation:	
	□ Natural ventilation systems are to be provided for cargo holds.	
	□ Natural or mechanical ventilation systems are to be provided for cargo holds.	
	Mechanical ventilation systems are to be provided for cargo holds.	
g	 □ At least two mechanical ventilation fans are to be provided for cargo holds. The total ventilation are 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. The height of coaming is to be equal to or more than regulated height (Position 1: 4.5 m, Position 2: 2.3 m). 	
	□ Ventilation fans are to be safe for use in a flammable atmosphere.	
	Spark-arresting screens (wire mesh guards with max. 13mm×13mm) are to be fitted to ventilation openings.	
h	SCBA: □ Two self contained breathing apparatuses with 200% spare cylinders are to be additionally provided.	
	Protective clothing resistant to chemical attack:	
i	Four sets of protective clothing which consists of boots, gloves, coverall and headgear are to be additionally	
	provided.	
	Bilge line:	
j	\Box In case where bilge lines are led to machinery space, bilge lines are to be isolated either by fitting a blank	
J	flange or by a closed lockable valve.	
	A notice is to be placed adjacent to the valve warning against opening without the master's permission.	
k	Electrical equipment: Electrical equipment fitted in the cargo holds, including motors of mechanical ventilation systems, are to be of safe type having an explosion protection grade/type stated below or upwards. Not suitable explosion protected type electrical equipment are to be capable of being positively isolated from outside of the spaces. (I IIAT2 / IIAT3 / IIAT4 / IICT1 /	
	\Box IICT2 / \Box IICT3 / \Box IICT4 / \Box Intrinsically safe type)	
1	Dual purpose nozzles	
-	□ Nozzles provided with fire hoses are to be of dual-purpose type (i.e., spray/jet type).	
m	4 jets of water □ The quantity of water delivered is to be capable of supplying four nozzles at pressure as specified in SOLAS	
m	☐ 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.	
	Heating arrangement	
n	☐ The means to disconnect heating arrangement for the tank(s) are to be provided (spectacle flange).	
	The means to monitor and control the temperature so that it does not exceed 50°C are to be provided.	
	FFEA	
w	□ Fixed CO2 fire extinguishing system is to be provided for cargo holds.	

2. The results of confirmation survey on board have been shown in the right columns. For the requirements complied with, the columns should be checked. For the requirements not applied, "NA" should be entered in the columns.

Ship's name : Class number : :

Date

)

IMSBC Code - Initial Checklist (for COAL and BROWN COAL BRIQUETTES)

1	Boundaries of cargo spaces are to be resistant to fire and liquids.	
2	Electrical equipment fitted in the cargo holds are to be of safe type having an explosion protection grade of	
	IIAT4 or upwards. Not suitable explosion protected type electrical equipment are to be capable of being	
	positively isolated from outside of the spaces and have the enclosure having a protection degree of IP55 or	
	upwards, and caution plates to ensure isolation of electrical equipment are to be provided.	
3	Suitable means for measuring following gases, etc. in cargo spaces without entry into such spaces are to be	
	provided.	
	Methane	
	Oxygen	
	Carbon monoxide	
	pH value	
	Temperature(0 - 100°C)	
4(*)	Two sets of self-contained breathing apparatus are to be provided. (Note: The apparatus required by SOLAS	
	Reg.II-2/17(00E) or Reg.II-2/10(00N) may be used for this purpose)	
5	"No Smoking" signs are to be posted in conspicuous places.	
6(*)	Natural ventilation system is to be provided for cargo spaces and air holes should be provided at the upper part of	
	web plates of longitudinal and transverse girders fitted to deck plates with appropriate spacing.	
	Note: Air holes should not be located at any part that may be subject to stress concentration.	
7	Natural or mechanical ventilation systems are to be provided for adjacent enclosed working spaces, such as store	
	rooms, carpenter's shops, passage ways, tunnels. In the case of mechanical ventilation, only the equipment	
	which is safe type for use in an explosive atmosphere can be used in cargo area.	
8	Two sampling holes per hold, one on the port side and one on the starboard side of the hatch cover or upper parts	
	of hatch coamings are to be provided with threaded stub and sealing cap.	
Note:	1. The items marked with (*) are not applicable to brown coal (lignite) briquettes.	

2. The results of confirmation survey on board have been shown in the right columns. For the requirements complied with, the columns should be checked. For the requirements not applied, "NA" should be entered in the columns.

Ship's name :

Class number :

:

Date

() Surveyor

Documents/information to be submitted

(1)	(2)	Required items (1) Column of Table 4.2 (2) Regulation of SOLAS II-2/54 (II-2/19)		Documents/information to be submitted The meanings of "H" and "L" are specified under this table.
e	2.8 (3.8)	"A-60" class insulation of bulkheads between the cargo space and engine room	Н	Drawings of fire protection construction Type and manufacture of the material
f		"NO SMOKING" signs	L	Number and locations of the signs
		Natural ventilation.		
	2.4.3 (3.4.3)	Natural or mechanical ventilation.	Н	Drawings of the system
~		Mechanical ventilation		
g	2.4.1	Mechanical ventilation (total ventilation at least six air	н	Drawings of the system
	(3.4.1)	changes per hour)		Calculations of the air changes
	2.4.2	Non-sparking fans	L	Specifications
	(3.4.2)	Spark-arresting screens (wire mesh guard)	L	Specifications
h	2.6.2 (3.6.2)	Self-contained breathing apparatus	L	Type, manufacturer and specifications
i	2.6.1 (3.6.1)	Protective clothing resistant to chemicals	L	Type, manufacturer and specifications
j		Stop valves and blank flanges on the bilge lines on machinery space side	Н	Drawing of bilge lines
k	2.2 (3.2)	Electrical equipment to be of safe type.	Н	Arrangement and wiring diagram of electrical equipment fitted in the space including grade of each equipment.
1	-	Jet/spray dual purpose type nozzle	L	Type, manufacturer and specifications
m	2.1.2 (3.1.2)	Capacity of fire pumps to supply four nozzles	Н	Fire main piping diagram with arrangement of hydrant and pump capacity.
n	-	Heating arrangement	Н	Drawing of heating arrangement. Drawing of the system for measuring and monitoring temperature.
w	-	Fixed CO_2 fire extinguishing system for cargo hold (FFEA)	Н	Drawing of the system

H: To be submitted to Material and Equipment department for examination by the Head office.

L: To be submitted to the local office for their checking.

Documents/information to be submitted for COAL/BROWN COAL BRIQUETTES Documents/information to be submitted

Requirements on Table 2.3]	uments/information to be submitted The meaning of "L" is specified under this table
Boundaries of cargo spaces should be resistant to fire and liquids.		_
Electrical cables and components situated in cargo spaces and adjacent spaces should be free from defects and safe for use in explosive atmosphere or positively isolated.	L	Arrangement and wiring diagram of electrical equipment fitted in the space including grade of each equipment, such as IIAT4.
Appropriate instruments for measuring followings into cargo spaces without entry into such spaces should be provided. Methane Oxygen Carbon monoxide pH value Temperature(0 - 100°C)	L	Type, manufacturer and specifications
Two sets of self-contained breathing apparatus to be provided.	L	Type, manufacturer and specifications
"No Smoking" sign and "No naked flames" sign should be posted in conspicuous places.	L	Number and locations of the signs
Natural surface ventilation should be provided for cargo spaces.	L	Drawings of the ventilation systems Arrangement of air holes
Natural or mechanical ventilation should be provided for enclosed working spaces, such as store rooms, carpenter's shops, passage ways, tunnels. Mechanical ventilation, if used, should be of safe type for use in explosive atmosphere.	L	Drawings of the system
Two sampling holes per hold, one on each side of the hatch cover should be provided with threaded stub and sealing cap.	L	Drawings of the system

L: To be submitted to the local office for their checking.

			Kevis	Revised points are shown in red.																		
a	b	с	d	е	f	g	h	i	j	k	1	m	n	о	р	q	r	\mathbf{s}	t	u	v	w
														SOLAS Reg.II-2/54.2 or 19.3								
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	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)
FERROSILICON with at least 25% but less than 30% silicon, or 90% or more silicon	MHB		В	G		ML,Sa			F, N	IICT1												
FOAM GLASS GRAVEL			С																			
ILMENITE SAND			Ā																			
IRON SMELTING BY-PRODUCTS			С																			
METAL SULPHIDE CONCENTRATES, CORROSIVE	8	1759	A and B				Y	Y											Y	Y		Yes ⁹
MONOAMMONIUM PHOSPHATE (M.A.P.), MINERAL ENRICHED COATING	MHB		В				Y	Y														
MONOCALCIUMPHOSPHATE (MCP)	MHB		A and B				Y	Y														
OLIVINE SAND			Α																			
OLIVINE GRANULAR AND GRAVEL AGGREGATE PRODUCTS			С																			
SAND, MINERAL CONCENTRATE, RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-I)	7	2912	A and B				Y	Y														
SILICOMANGANESE (carbo-thermic)			С																			
SUGARCANE BIOMASS PELLETS	MHB		В				Y															Yes
SYNTHETIC CALCIUM FLUORIDE			Α																			
SYNTHETIC SILICON DIOXIDE			Α																			
TITANOMAGNETITE SAND			Α																			
The contents of each column in the Table G1 are same as that i	n tho Te	blo 1 1																				

Table G1 - Cargoes newly added and requirements on construction/equipment (IMSBC Code (4th amendment))

Revised points are shown in red.

The contents of each column in the Table G1 are same as that in the Table 1.1

Note 9 : Except Metal Sulphide Concentrates considered as presenting a low fire-risk



4 ALBERT EMBANKMENT LONDON SE1 7SR Telephone: +44 (0)20 7735 7611 Fax: +44 (0)20 7587 3210

MSC.1/Circ.1395/Rev.3 16 June 2017

LISTS OF SOLID BULK CARGOES FOR WHICH A FIXED GAS FIRE-EXTINGUISHING SYSTEM MAY BE EXEMPTED OR FOR WHICH A FIXED GAS FIRE-EXTINGUISHING SYSTEM IS INEFFECTIVE

1 The Maritime Safety Committee, at its sixty-fourth session (5 to 9 December 1994), agreed that there was a need to provide Administrations with guidelines regarding the provisions of SOLAS regulation II-2/10 concerning exemptions from the requirements for fire-extinguishing systems.

- 2 Consequently, the Committee approved MSC/Circ.671 whereby it agreed to:
 - .1 a list of solid bulk cargoes, for which a fixed gas fire-extinguishing system may be exempted (table 1) and recommended Member States to take into account the information contained in table 1 when granting exemptions under the provisions of SOLAS regulation II-2/10.7.1.4; and
 - .2 a list of solid bulk cargoes for which a fixed gas fire-extinguishing system is ineffective (table 2), and recommended that cargo spaces in a ship engaged in the carriage of cargoes listed in table 2 be provided with a fire-extinguishing system which provides equivalent protection. The Committee also agreed that Administrations should take account of the provisions of SOLAS regulation II-2/19.3.1 when determining suitable requirements for an equivalent fire-extinguishing system.

3 The Maritime Safety Committee, at its seventy-ninth session (1 to 10 December 2004), reviewed the above-mentioned tables and approved MSC.1/Circ.1146. The Committee decided that the annexed tables should be periodically reviewed and invited Member States to provide the Organization, when granting exemptions to ships for the carriage of cargoes not included in table 1, with data on the non-combustibility or fire risk properties of such cargoes. Member States were also requested to provide the Organization, when equivalent fire-extinguishing systems are required for the agreed carriage of cargoes not included in table 2, with data on the inefficiency of fixed gas fire-extinguishing systems for such cargoes.

4 The Maritime Safety Committee, at its eighty-ninth session (11 to 20 May 2011), noting the mandatory status of the IMSBC Code, reviewed the aforementioned lists of solid bulk cargoes to align certain names in the lists with those in the recent version of the IMDG Code and approved MSC.1/Circ.1395 on *Lists of solid bulk cargoes for which a fixed gas fire-extinguishing system may be exempted or for which a fixed gas fire-extinguishing system may be exempted or for which a fixed gas fire-extinguishing system may be exempted or for which a fixed gas fire-extinguishing system is ineffective, superseding MSC.1/Circ.1146. The Maritime Safety Committee, at its ninety-second session (12 to 21 June 2013), approved a revision to MSC.1/Circ.1395.*



5 The Maritime Safety Committee, at its ninety-fifth session (3 to 12 June 2015), considering the proposal by the Sub-Committee on Carriage of Cargoes and Containers, at its first session, approved a revision to MSC.1/Circ.1395/Rev.1.

6 The Maritime Safety Committee, at its ninety-eighth session (7 to 16 June 2017), considering the proposal by the Sub-Committee on Carriage of Cargoes and Containers, at its third session, approved a revision to MSC.1/Circ.1395/Rev.2, as set out in tables 1 and 2 of the annex.

7 The purpose of this circular is to provide guidance to Administrations. It should not, however, be considered as precluding Administrations from their right to grant exemptions for cargoes not included in table 1 or to impose any conditions when granting such exemptions under the provisions of SOLAS regulation II-2/10.7.1.4.

8 This circular supersedes MSC.1/Circ.1395/Rev.2.

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 SOLAS 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;
- .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 AMORPHOUS SODIUM SILICATE LUMPS BORIC ACID CALCINED PYRITES (Pyritic ash) **CLINKER ASH** COAL TAR PITCH DIRECT REDUCED IRON (A) Briquettes, hot moulded FERROPHOSPHORUS (including briquettes) FERROSILICON UN 1408, with 30% or more but less than 90% silicon (including briquettes) FERROSILICON, with at least 25% but less than 30% silicon, or 90% or more silicon FLUORSPAR (calcium fluoride) GRANULATED NICKEL MATTE (LESS THAN 2% MOISTURE CONTENT) LIME (UNSLAKED) LOGS MAGNESIA (UNSLAKED) MONOCALCIUMPHOSPHATE (MCP) MONOAMMONIUM PHOSPHATE (M.A.P.), MINERAL ENRICHED COATING PEAT MOSS PETROLEUM COKE* PITCH PRILL PULP WOOD RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY MATERIAL (LSA-1), (non-fissile or fissile - excepted) UN 2912

^{*} When loaded and transported under the provisions of the IMSBC Code.

RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECT(S) (SCO-I or SCO-II), (non-fissile or fissile – excepted) UN 2913 ROUNDWOOD SAND, MINERAL CONCENTRATE, RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-I) UN 2912 SAW LOGS SILICOMANGANESE SULPHUR, UN 1350 TIMBER VANADIUM ORE WOODCHIPS, with moisture content of 15% or more WOOD PELLETS (NOT CONTAINING ANY ADDITIVES AND/OR BINDERS) ZINC ASHES, UN 1435

.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 METAL SULPHIDE CONCENTRATES, CORROSIVE UN 1759

- 3 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 are 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 1454 POTASSIUM NITRATE, UN 1474 POTASSIUM NITRATE, UN 1486 SODIUM NITRATE, UN 1498 SODIUM NITRATE AND POTASSIUM NITRATE, MIXTURE, UN 1499