

標題

IMSBC コード第 4 次改正の適用について

# ClassNK

## テクニカル インフォメーション

No. TEC-1143  
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各位

IMSBC コード第 4 次改正の適用について、以下の通りお知らせいたします。

本テクニカル・インフォメーションでは IMO Resolution MSC.426(98)による IMSBC コードの改正を "IMSBC コード第 4 次改正"と呼称いたします。

なお、テクニカル・インフォメーション No.TEC-1057 にてお知らせしております IMSBC コード第 3 次改正に基づく現行の IMSBC コード(2015 Edition)については、本テクニカル・インフォメーションにおいても IMSBC コード(2015 Edition)と呼称いたします。

また、本テクニカル・インフォメーションの発行をもちまして、2014 年 1 月 22 日発行のテクニカル・インフォメーション No.TEC-0979 及び 2014 年 11 月 20 日発行のテクニカル・インフォメーション No.TEC-1014 を絶版といたします。

### 1. IMSBC コードの改正

2017 年 6 月に IMO で開催された第 98 回海上安全委員会 (MSC98)において、個々の貨物に対する要件を見直した改正 IMSBC コード"IMSBC コード第 4 次改正"が採択されました。

IMSBC コード第 4 次改正は、2019 年 1 月 1 日以降に固体貨物をばら積みする全ての船舶に対して、強制適用となります。

### 2. IMSBC コード適合書の申込方法

IMSBC コード第 4 次改正に対する適合書の申込方法は、添付 1.の「IMSBC コード第 4 次改正適合書の申込手続き」をご参照ください。

### 3. 新規追加貨物

IMSBC コード第 4 次改正では、IMSBC コード(2015 Edition)の貨物リストから新たに追加された貨物がありますのでご注意ください。これらの貨物については、添付 2.の「Table G1 - 新規追加貨物及び構造・設備要件(IMSBC コード第 4 次改正)」をご参照ください。

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#### NOTES:

- ClassNK テクニカル・インフォメーションは、あくまで最新情報の提供のみを目的として発行しています。
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#### 4. IMSBC コード第 4 次改正の任意適用

2018 年 1 月 1 日から、ご要望に応じて IMSBC コード第 4 次改正に従う適合書を発行いたします。

添付 2.の Table G1 に記載される Group A and B 貨物及び Group B 貨物については、Table G1 の要件を満足する場合、IMSBC コード第 4 次改正に基づいた適合書を発行いたします。発行にあたっては船上検査が必要となる場合もございます。検査の要否は弊社材料艀装部までお問い合わせ下さい。なお、Table G1 中の METAL SULPHIDE CONCENTRATES, CORROSIVE (IMO class 8, UN No.1759)の積載に際しましては、当該貨物は危険物に該当するため、当該貨物を IMSBC コード適合書に加える場合には、危険物運搬船適合証書(DG 証書)についても書換えが必要となります。

#### 5. 固定式ガス消火装置(FFEA)免除証書の書換え

(1) IMSBC コード第 4 次改正及び MSC.1/Circ.1395/Rev.3(添付 3.参照)によって、以下の Group A and B 貨物及び/又は Group B 貨物を積載する際は、FFEA の搭載が免除できることが新たに規定されました。

- 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)

上記貨物の積載の際、FFEA 免除証書の貨物リストに追加記載するため、免除証書の書換えが必要となります。

- (2) 弊社発行の免除証書を所持している船舶の場合、弊社において上記貨物を記載した免除証書を発行いたします。
- (3) パナマ籍船の場合、弊社において仮免除証書を発行後、30 日以内に船主又は管理会社から直接パナマ政府へ免除証書発行の申請が必要となります。
- (4) リベリア籍船の場合、弊社において仮免除証書を発行後、弊社よりリベリア政府へ免除証書発行の申込みを行います。
- (5) パナマ政府及びリベリア政府以外の旗国政府発行の免除証書をお持ちの場合、直接旗国政府に免除証書発行のお申込みをしていただく必要がございます。

(次頁に続く)

なお、本件に関してご不明な点は、以下の部署にお問い合わせください。

[IMSBC コード適合書、その他関連のお問い合わせ]

一般財団法人 日本海事協会 (ClassNK)

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[固定式ガス消火装置免除証書についてのお問い合わせ]

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添付:

1. IMSBC コード第 4 次改正適合書の申込手引き
2. Table G1 - 新規追加貨物及び構造・設備要件 (IMSBC コード第 4 次改正)
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

## IMSBC コード 第 4 次改正 適合書の申込手続き

### 0101 一般

IMSBC コードでは、固体ばら積み貨物は、以下のように分類されています。

- (1) 液化化することのあるばら積み貨物 (Group A)
- (2) 化学的危険性を有するばら積み貨物 (Group B)
- (3) 前者のいずれにも該当しないばら積み貨物 (Group C)

この手続きでは、これらを各々に「Group A 貨物」、「Group B 貨物」及び「Group C 貨物」と呼びます。

### 0102 個々の貨物に対する構造・設備要件

- 1. 運送貨物の種類に拘わらず、弊会により承認されたローディングマニュアル及び復原性資料の備付けが要求されます。
- 2. Group A 貨物において含水量が運送許容水分値を越える場合、専用船又は特別な設備（原則として貨物の移動を制限するための可般式隔壁または固定式縦通隔壁）による運送が要求されます。詳しくは、IMSBC コード Section 7 を参照してください。
- 3. COAL 及び BROWN COAL BRIQUETTES 以外の貨物の要件については、Table 1.1 及び Table 1.2 を参照してください。  
COAL 及び BROWN COAL BRIQUETTES の要件については、Table 1.3 を参照してください。

注 1.1 同コードには消防及び人身保護のための構造・設備の他、船上業務（荷役、運送条件や荷役操作）に関する注意及び各貨物の性状に関する情報が掲載されています。

注 1.2 Table 1.1 には、便宜のために改正 SOLAS74（及び 2000 年 SOLAS 改正）の関係要件（危険物の運送）の概要も一緒に記載しています。

### 0103 申込み

- 1. 申込者(船舶所有者若しくはその代理者または船舶建造者)は、少なくとも次の事項を記載した申込書を、船上検査に先立ち、弊会支部・事務所または材料艀装部に提出してください。(0104 参照)
  - (1) 対象貨物 (Group A 貨物、Group C 貨物、又は Group B 貨物。Group B 貨物を含む場合、対象貨物リストの提出が必要となります。)
  - (2) 受検予定日及び場所、並びに現地代理店（就航船の場合）
  - (3) 提出書類のリスト（申込書と一緒に提出されるもののリスト及び別途提出されるもののリスト）
- 2. 対象貨物に危険物（国連番号（UN No.）が付与されているもの）が含まれている場合、危険物運搬船適合証書（船級検査及び条約検査）の申込みも必要となります。

### 0104 書類の提出

- 1. 積載貨物に Group B 貨物が含まれている場合、Table 1.4（COAL 及び BROWN COAL BRIQUETTES 以外）及び/または Table 1.5（COAL 及び BROWN COAL BRIQUETTES）に掲げる書類各 1 部を材料艀装部又は弊会支部・事務所に提出する必要があります。ただし、就航船の場合であって、特定の構造・設備について、要件への適合の確認が船上検査のみで行えると弊会が判断した場合、書類の提出・審査が省略できる場合もあります。書類の提出・審査の可否に関しては、材料艀装部までお問い合わせ下さい。
- 2. 積載貨物に含水量の制限を条件としない Group A 貨物が含まれている場合、関連の船体構造図、復原性計算書及びその他本会が必要と認める書類を材料艀装部に各 3 部提出する必要があります。

#### **0105 IMSBC コード適合書の発行**

必要に応じ材料艀装部で書類審査を行い、弊社支部・事務所で船上検査を行った後、適合書を発行いたします。

#### **0106 適合書の更新・書換え**

- 1. Table G1 に記載される Group A and B 及び Group B の貨物に関する IMSBC コード適合書の書換え

追加の要件がない（船上検査を要しない）場合、材料艀装部へ検査申込書に加えて貨物リストを提出してください。追加の要件がある（船上検査を要する）場合は、検査を担当する弊社支部・事務所に検査申込書に加えて貨物リストを提出してください。

- 2. 有効期限切れに伴う IMSBC コード適合書の更新

材料艀装部における書類審査は必要ございません。検査を担当する弊社支部・事務所に検査申込書を直接提出してください。

- 3. 旗国政府又は船名変更に伴う IMSBC コード適合書の書換え

材料艀装部における書類審査は必要ありません。検査を担当する弊社支部・事務所に検査申込書を直接提出してください。



Table 1.1

**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)**

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	
ALFALFA			C																			
ALUMINA			C																			
ALUMINA, CALCINED			C																			
ALUMINA HYDRATE	MHB		A and B				Y	Y														
ALUMINA SILICA			C																			
ALUMINA SILICA, pellets			C																			
ALUMINIUM FERROSILICON POWDER	4.3	1395	B	A, G	Y	ML,Sa	Y			IICT2						X	X	X	X	X	X	
ALUMINIUM FLUORIDE			A																			
ALUMINIUM NITRATE	5.1	1438	B				Y	Y			Y	Y		X	X				X	X		(Yes)
ALUMINIUM SILICON POWDER, UNCOATED	4.3	1398	B	A, G	Y	ML,Sa	Y			IICT2						X	X	X	X	X	X	
ALUMINIUM SMELTING BY-PRODUCTS or ALUMINIUM REMELTING BY-PRODUCTS	4.3	3170	B	A, G	Y	ML,Sa	Y			IICT2						X	X	X	X	X	X	
ALUMINIUM SMELTING / REMELTING BY-PRODUCTS, PROCESSED	MHB		A and B	G	Y	ML			F													Yes
AMMONIUM NITRATE	5.1	1942	B	A	Y		Y	Y		IS		Y	N1	X	X	X		X <sup>8</sup>	X	X	X	(Yes)
AMMONIUM NITRATE BASED FERTILIZER (Type A)	5.1	2067	B	A	Y		Y	Y		IS		Y	N1 or N2	X	X	X		X <sup>8</sup>	X	X	X	(Yes)
AMMONIUM NITRATE BASED FERTILIZER (Type B)	9	2071	B	A	Y		Y	Y		IS		Y	N1 or N2	X	X	X		X <sup>8</sup>	X	X	X	(Yes)
AMMONIUM NITRATE BASED FERTILIZER (non-hazardous)			C	A	Y		Y	Y		IS		Y	N1 or N2									
AMMONIUM SULPHATE			C																			
AMORPHOUS SODIUM SILICATE LUMPS	MHB		B																			
ANTIMONY ORE AND RESIDUE			C																			
BARIUM NITRATE	5.1	1446	B			Nm	Y	Y			Y	Y		X	X				X	X		(Yes)
BARYTES			C																			
BAUXITE			C																			
BIOSLUDGE			C																			
BORAX (PENTAHYDRATE CRUDE)			C																			
BORAX, ANHYDROUS, crude or refined			C																			
BORIC ACID	MHB		B																			
BROWN COAL BRIQUETTES	MHB		B																			

See Table 1.3

[illegible]

[illegible]



[illegible]

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	
PELLETS (concentrates)			C																			
PERLITE ROCK			C																			
PETROLEUM COKE (calcined or uncalcined)	MHB		B				Y	Y			Y											
PHOSPHATE (defluorinated)			C																			
PHOSPHATE ROCK (calcined)			C																			
PHOSPHATE ROCK (uncalcined)			C																			
PIG IRON			C																			
PITCH PRILL	MHB		B			Nm	Y	Y			Y											
POTASH			C																			
POTASSIUM CHLORIDE			C																			
POTASSIUM NITRATE	5.1	1486	B				Y	Y			Y	Y		X	X				X	X		(Yes)
POTASSIUM SULPHATE			C																			
PUMICE			C																			
PYRITE (containing copper and iron)			C																			
PYRITES, CALCINED (Calcined Pyrites)	MHB		A and B																			
PYROPHYLLITE			C																			
QUARTZ			C																			
QUARTZITE			C																			
RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-I)	7	2912	B				Y	Y														
RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECTS (SCO-I)	7	2913	B				Y	Y														
RASORITE (ANHYDROUS)			C																			
RUTILE SAND			C																			
SALT			C																			
SALT CAKE			C																			
SALT ROCK			C																			
SAND			C																			
SAND, HEAVY MINERAL			A																			
SAND, MINERAL CONCENTRATE, RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-I)	7	2912	A and B				Y	Y														
SAWDUST	MHB		B			Nm																Yes
SCALE GENERATED FROM THE IRON AND STEEL MAKING PROCESS			A																			
SCRAP METAL			C			Nm																
SEED CAKE (a)	4.2	1386	B	A			Y							X	X				X	X	X	Yes
SEED CAKE (b)	4.2	1386	B	A <sup>5</sup>	Y	Nm, Sp	Y			IIAT3 <sup>5</sup>				X	X	X <sup>5</sup>	X <sup>5</sup>	X <sup>5</sup>	X	X	X	Yes

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	
SEED CAKE	4.2	2217	B	A	Y	Nm, Sp	Y			IIAT3				X	X	X	X	X	X	X	X	Yes
SEED CAKE (non-hazardous)			C																			
SILICOMANGANESE (carbo-thermic)			C																			
SILICOMANGANESE (low carbon)	MHB		B		Y	M, Sa	Y			IICT1												
SILICON SLAG			C																			
SODA ASH			C																			
SODIUM NITRATE	5.1	1498	B				Y	Y			Y	Y		X	X				X	X		(Yes)
SODIUM NITRATE AND POTASSIUM NITRATE MIXTURE	5.1	1499	B				Y	Y			Y	Y		X	X				X	X		(Yes)
SOLIDIFIED FUELS RECYCLED FROM PAPER AND PLASTICS	MHB		B					Y														Yes
SPODUMENE (UPGRADED)			A																			
STAINLESS STEEL GRINDING DUST			C																			
STONE CHIPPINGS			C																			
SUGAR			C																			
SUGARCANE BIOMASS PELLETS	MHB		B				Y															Yes
SULPHATE OF POTASH AND MAGNESIUM			C																			
SULPHUR (formed, solid)			C			Nm																
SULPHUR (crushed lump and coarse grained) <sup>6</sup>	4.1	1350	B	A	Y	Nm, Sp	Y			IIAT4				X	X	X		X <sup>8</sup>	X	X	X	
SUPERPHOSPHATE			C																			
SUPERPHOSPHATE (triple, granular)			C																			
SYNTHETIC CALCIUM FLUORIDE			A																			
SYNTHETIC SILICON DIOXIDE			A																			
TACONITE PELLETS			C																			
TALC			C																			
TANKAGE	MHB		B				Y															Yes
TAPIOCA			C																			
TITANOMAGNETITE SAND			A																			
UREA			C																			
VANADIUM ORE	MHB		B				Y															
VERMICULITE			C																			
WHITE QUARTZ			C																			
WOODCHIPS	MHB		B				Y															Yes <sup>7</sup>
WOOD PELLETS CONTAINING ADDITIVES AND/OR BINDERS	MHB		B				Y															Yes
WOOD PELLETS NOT CONTAINING ANY ADDITIVES AND/OR BINDERS	MHB		B				Y															
WOOD PRODUCTS - GENERAL	MHB		B			Nm	Y															
WOOD TORREFIED	MHB		B				Y															Yes

[illegible]

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 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 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 “o” ~ “v”)  
X : Applicable.
16. FFEA (SOLAS Reg.II-2/10.7.1.3) (column “w”)  
Yes : Fixed CO<sub>2</sub> 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 CO<sub>2</sub> 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.



Table 1.2

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

Columns	Requirements	Results
e	Stowage: <input type="checkbox"/> 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). <input type="checkbox"/> Boundaries of components are to be resistant to fire and passage of water. <input type="checkbox"/> Bulkheads to the engine room are to be of gastight.	<input type="checkbox"/>
f	NO SMOKING sign: <input type="checkbox"/> "NO SMOKING" signs are to be posted on decks and in areas adjacent to cargo compartment.	<input type="checkbox"/>
g	Ventilation: <input type="checkbox"/> Natural ventilation systems are to be provided for cargo holds. <input type="checkbox"/> Natural or mechanical ventilation systems are to be provided for cargo holds. <input type="checkbox"/> Mechanical ventilation systems are to be provided for cargo holds. <input type="checkbox"/> 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). <input type="checkbox"/> Ventilation fans are to be safe for use in a flammable atmosphere. <input type="checkbox"/> Spark-arresting screens (wire mesh guards with max. 13mm×13mm) are to be fitted to ventilation openings.	<input type="checkbox"/>
h	SCBA: <input type="checkbox"/> Two self contained breathing apparatuses with 200% spare cylinders are to be additionally provided.	<input type="checkbox"/>
i	Protective clothing resistant to chemical attack: <input type="checkbox"/> Four sets of protective clothing which consists of boots, gloves, coverall and headgear are to be additionally provided.	<input type="checkbox"/>
j	Bilge line: <input type="checkbox"/> In case where bilge lines are led to machinery space, bilge lines are to be isolated either by fitting a blank flange or by a closed lockable valve. <input type="checkbox"/> A notice is to be placed adjacent to the valve warning against opening without the master's permission.	<input type="checkbox"/>
k	Electrical equipment: <input type="checkbox"/> 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. ( <input type="checkbox"/> IIAT2 / <input type="checkbox"/> IIAT3 / <input type="checkbox"/> IIAT4 / <input type="checkbox"/> IICT1 / <input type="checkbox"/> IICT2 / <input type="checkbox"/> IICT3 / <input type="checkbox"/> IICT4 / <input type="checkbox"/> Intrinsically safe type )	<input type="checkbox"/>
l	Dual purpose nozzles <input type="checkbox"/> Nozzles provided with fire hoses are to be of dual-purpose type (i.e., spray/jet type).	<input type="checkbox"/>
m	4 jets of water <input type="checkbox"/> 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.	<input type="checkbox"/>
n	Heating arrangement <input type="checkbox"/> The means to disconnect heating arrangement for the tank(s) are to be provided (spectacle flange). <input type="checkbox"/> The means to monitor and control the temperature so that it does not exceed 50°C are to be provided.	<input type="checkbox"/>
w	FFEA <input type="checkbox"/> Fixed CO <sub>2</sub> fire extinguishing system is to be provided for cargo holds.	<input type="checkbox"/>

Note: 1. The requirements checked are applied to the ship.  
 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



**Table 1.3**

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

1	Boundaries of cargo spaces are to be resistant to fire and liquids.	<input type="checkbox"/>
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.	<input type="checkbox"/>
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)	<input type="checkbox"/>
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)	<input type="checkbox"/>
5	"No Smoking" signs are to be posted in conspicuous places.	<input type="checkbox"/>
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.	<input type="checkbox"/>
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.	<input type="checkbox"/>
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.	<input type="checkbox"/>

- 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

**Table 1.4**

**Documents/information to be submitted**

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.	
(1)	(2)			
e	2.8 (3.8)	“A-60” class insulation of bulkheads between the cargo space and engine room	H	Drawings of fire protection construction Type and manufacture of the material
f	--	“NO SMOKING” signs	L	Number and locations of the signs
g	--	Natural ventilation.	H	Drawings of the system
	2.4.3 (3.4.3)	Natural or mechanical ventilation.		
	--	Mechanical ventilation		
	2.4.1 (3.4.1)	Mechanical ventilation (total ventilation at least six air changes per hour)	H	Drawings of the system Calculations of the air changes
	2.4.2 (3.4.2)	Non-sparking fans	L	Specifications
		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		
j	--	Stop valves and blank flanges on the bilge lines on machinery space side	H	Drawing of bilge lines
k	2.2 (3.2)	Electrical equipment to be of safe type.	H	Arrangement and wiring diagram of electrical equipment fitted in the space including grade of each equipment.
l	-	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	H	Fire main piping diagram with arrangement of hydrant and pump capacity.
n	-	Heating arrangement	H	Drawing of heating arrangement. Drawing of the system for measuring and monitoring temperature.
w	-	Fixed CO <sub>2</sub> fire extinguishing system for cargo hold (FFEA)	H	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.

**Table 1.5**

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

Requirements on Table 2.3	Documents/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.

Table G1 - 新規追加貨物及び構造・設備要件(IMSBC コード第 4 次改正)

改正箇所を朱字で示す

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	
FERROSILICON with at least 25% but less than 30% silicon, or 90% or more silicon	MHB		B	G	Y	ML,Sa	Y		F, N	IICT1												
FOAM GLASS GRAVEL			C																			
ILMENITE SAND			A																			
IRON SMELTING BY-PRODUCTS			C																			
METAL SULPHIDE CONCENTRATES, CORROSIVE	8	1759	A and B				Y	Y											Y	Y		Yes <sup>9</sup>
MONOAMMONIUM PHOSPHATE (M.A.P.), MINERAL ENRICHED COATING	MHB		B				Y	Y														
MONOCALCIUMPHOSPHATE (MCP)	MHB		A and B				Y	Y														
OLIVINE SAND			A																			
OLIVINE GRANULAR AND GRAVEL AGGREGATE PRODUCTS			C																			
SAND, MINERAL CONCENTRATE, RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-I)	7	2912	A and B				Y	Y														
SILICOMANGANESE (carbo-thermic)			C																			
SUGARCANE BIOMASS PELLETS	MHB		B				Y															Yes
SYNTHETIC CALCIUM FLUORIDE			A																			
SYNTHETIC SILICON DIOXIDE			A																			
TITANOMAGNETITE SAND			A																			

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.

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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 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.

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**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

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\* 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 1469  
MAGNESIUM NITRATE, UN 1474  
POTASSIUM NITRATE, UN 1486  
SODIUM NITRATE, UN 1498  
SODIUM NITRATE AND POTASSIUM NITRATE, MIXTURE, UN 1499