KORYO PYROTECHNICS CO., LTD.

www.kpyro.com

KORYO

Marine Distress Signals

Rocket Parachute Flare



USE

Pick up a distress signal on the sea

SPECIFICATIONS

- Size : Φ41 x 221㎜
- Weight : 370g
- Materials : Resin
- Ignition Method : Rocket Propulsion type of detonate

CERTIFICATIONS

Obtained MED

- Certificate No : MED-MB-1009-10

MAINTAIN

- Expiry Period : 3 years

FUNCTION

- Luminous Color : Vivid red
- Ignition Time : Min. 40 seconds
- Luminous Intensity : Min. 30,000 cd
- Altitude : Min. 300m

PACKING

- Rocket Parachute Flare
  2 Rounds/1Plastic Box,
  12Plastic Box/1Carton(24Rounds)

OPERATION

1. Remove top and bottom cap.
2. Pull bottom ring until it stops and turn it upwards.
3. Hold singal with both hands firmly and keep upright. Squeeze top of ring holder with base of thumb, then push it for fire.

REFERENCE

- SOLAS 1999/2000-5 April 2001
- LSA Code-25 September 1998
- Resolution MSC.81(70)-11 December 1998
- 96/98 EC Directive 10 July 2001





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koryo Pyrotechnics Co.,Ltd.

Red Hand Flare

K-33



USE

Pick up a distress signal on the sea

SPECIFICATIONS

- Size : ø27.1x172.7㎜
- Weight : 180g
- Materials : Stainless steel
- Ignition Method : Detonator striking

CERTIFICATIONS

Obtained MED

- Certificate No : MED-MB-1010-10

MAINTAIN

- Expiry Period : 3 years

FUNCTION

- Luminous Color : Vivid red
- Ignition Time : Min. 1 minute
- Luminous Intensity : Min. 15,000 cd

PACKING

- Red Hand Flare
  6 Rounds/1Plastic Box,
  16Plastic Box/1Carton(96Rounds)

OPERATION

1. Turn handle to slot and unscrew cap.
2. Pull out ignition-cord, and then ignition.

REFERENCE

- SOLAS 1999/2000-5 April 2001
- LSA Code-25 September 1998
- Resolution MSC.81(70)-11 December 1998
- 96/98 EC Directive 10 July 2001



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koryo Pyrotechnics Co.,Ltd.

Buoyant Smoke Signal



USE

Pick up a distress signal on the sea

SPECIFICATIONS

- Size : ø82x100㎜
- Weight : 420g
- Materials : Tin coated steel plate
- Ignition Method : Detonator striking

CERTIFICATIONS

Obtained MED

- Certificate No : MED-MB-1011-10

MAINTAIN

- Expiry Period : 3 years

FUNCTION

- Smoke Color : Orange
- Smoke Duration : Min. 3 minutes

PACKING

- Buoyant Smoke Signal
  1 Round/Pack,
  24Pack/1Carton (24Rounds)

OPERATION

1. Remove safety cap.
2. Smoke will generate if you draw the trigger line
3. Throw into a sea

REFERENCE

- SOLAS 1999/2000-5 April 2001
- LSA Code-25 September 1998
- Resolution MSC.81(70)-11 December 1998
- 96/98 EC Directive 10 July 2001



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koryo Pyrotechnics Co.,Ltd.

Self-Activating Smoke Signal

USE

Pick up a distress signal on the sea

SPECIFICATIONS

- Size : ø118x240㎜
- Weight : 2,200g
- Materials : Tin Coated Steel Plate
- Ignition Method : Detonator striking



CERTIFICATIONS

Obtained MED

- Certificate No : MED-MB-1012-12

MAINTAIN

- Expiry Period : 3 years

FUNCTION

- Smoke Color : Orange
- Smoke duration : Min. 15 minutes

PACKING

- Self-Activating Smoke Signal
  1Rounds/1Pack,
  6Pack/1Carton(6Rounds)

OPERATION

1. The pulling rope on the top should be fixed to the ship body. and the other rope on the side should be attached to a lifebuoy.
2. Hold it by hand and throw it overboard on the water.
3. It is automatically ignited, and instantly generates a volume of dense orange colored smoke for 15 minutes

REFERENCE

- SOLAS 1999/2000-5 April 2001
- LSA Code-25 September 1998
- Resolution MSC.81(70)-11 December 1998
- 96/98 EC Directive 10 July 2001



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KORYO Pyrotechnics Co.,Ltd.

Light-Smoke Signal

K-52



USE

This Light-smoke signal K-52 is combined type of self activating smoke signal and self-igniting light, and intended to the lifebuoy having arrangement of quick release from ship's navigation bridge at side.

SPECIFICATIONS

- Size : ø188x86x490㎜
- Weight : 4,300g(Including bracket 5,100g)
- Materials : Resin+Aluminum
- Lighting Power Source : 1 Lithium 3V
- Ignition Method : Detonator striking
- Lighting Method : Mercury Switch & Toggle Switch

CERTIFICATIONS

Obtained MED

- Certificate No : MED-MB-1013-12

MAINTAIN

- Expiry Period : 3 years

FUNCTION

Emission of smoke by self-activation of striker igniter by pulling out of activating cord on top, and automatic "Light-on" in self-up-right position afloat in water sea.

- Smoke Color : Orange
- Smoke duration : Min. 15 minutes
- Light Duration : Min. 2 hours
- Luminous Intensity : Min. 2 cd

PACKING

- Life-Smoke Signal
  2Rounds/1Carton(2Rounds)



OPERATION

With instant separation clip for Lifebuoys.

1. Connect the Lifebuoys with Light-smoke signals.
2. Light-smoke signals will function dropping down with Lifebuoys if you draw the fixed pin of the instant separation clip.

Without instant separation clip for Lifebuoys.

1. Connect the Lifebuoys with Light-smoke signals.
2. Light-smoke signal will function if you throw Lifebuoys on the sea.

REFERENCE

- SOLAS 1999/2000-5 April 2001
- LSA Code-25 September 1998
- Resolution MSC.81(70)-11 December 1998
- 96/98 EC Directive 10 July 2001

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koryo Pyrotechnics Co.,Ltd.

Lifebuoy Self-Igniting Light

K-26



USE

Pick up a distress signal on the sea

SPECIFICATIONS

- Size : ø118.5x450㎜
- Weight : 1,260g
- Materials : Resin
- Connecting Line : 1.5m
- Light Power Source : 5 Alkaline battery(LR20)
- Lighting Method : Mercury switch

CERTIFICATIONS

Obtained MED

- Certificate No : MED-MB-1003-10

MAINTAIN

- Expiry Period : Change the battery once a year

FUNCTION

- Light Duration : Min. 2 hours
- Light Intensity : Min. 2 cd

PACKING

- Lifebuoy Self-Igniting Light
  1EA/1Carton, 10Carton/1Carton(10Rounds)

OPERATION

1. Lock the light bulb to the end after opening the cap.
2. Lock the cap to the end in the right direction.(The light bulb will turn off if you tilt it.)
3. Keep lifebuoys reversing after connecting them with lines in the underpart.
4. The light bulb will turn on automatically if it is thrown away on the sea.

REFERENCE

- SOLAS 1999/2000~5. April. 2001
- LSA Code-25 September. 1998
- Resolution MSC.81(70)-11. December. 1998
- Resolution MSC.200(80)-13. May. 2005
- Resolution MSC.226(82)-8. December. 2006
- 96/98 EC Directive-10. July. 2001
- ISO 24408-15. November.2005





ACCESSORY/BRACKET

- Specification : ø84.2x148.2mm
- Materials : Resin

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koryo Pyrotechnics Co.,Ltd.

K-36 Lifebuoy Self-Igniting Light (Flash light type)



USE

Pick up a distress signal on the sea

SPECIFICATIONS

- Size : 78.3x78.3x170.5㎜
- Weight : 245g
- Materials : Resin
- Connecting Line : 1.5m
- Light Power Source : 1 Alkaline battery (LR20)
- Lgnition Method : Mercury switch

CERTIFICATIONS

Obtained MED

- Certificate No : MED-MB-1018-10

MAINTAIN

- Expiry Period : Change the battery once a year

FUNCTION

- Light Duration : Min. 2 hours
- Light Intensity : Min. 2 cd

PACKING

- Lifebuoy Self-Igniting Light
  1EA/1Carton, 10Carton/1Carton(10Rounds)

OPERATION

1. Open the cap and put the battery.
2. Lock the cap to the end in the right direction. (The light bulb will turn off if you tilt it.)
3. Keep lifebuoys reversing after connecting them with lines in the underpart.
4. The light bulb will turn on automatically if it is thrown away on the sea.

REFERENCE

- SOLAS 1999/2000~5. April. 2001
- LSA Code-25 September. 1998
- Resolution MSC.81(70)-11. December. 1998
- Resolution MSC.200(80)-13. May. 2005
- Resolution MSC.226(82)-8. December. 2006
- 96/98 EC Directive-10. July. 2001
- ISO 24408-15. November.2005



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koryo Pyrotechnics Co.,Ltd.

Line-Throwing Appliance



USE

Line-throwing appliance K-19 should be used that quickly and accurately rescue of a vessel or human life at a far-off place.

SPECIFICATIONS

- Size : ø183x333㎜
- Weight : 3,900g
- Materials : Resin
- Length of line : 320m(±10%)
- Propelling Method : Detonator striking

CERTIFICATIONS

Obtained MED

- Certificate No : MED-MB-1013-10

MAINTAIN

- Expiry Period : 3 years

FUNCTION

- Propelling distance : Min.230m

PACKING

- Line-Throwing Appliance
  4Rounds/1Carton(4Rounds)

OPERATION

Remove the upper cap and bind firmly up hall with the line with red band. And point arrow on unit in the direction of firing and then, press the line throwing appliance against your thigh and the remove safety pin. And the last, held the body and pull trigger in the direction of firing. When fulling the trigger, trigger pull the firing pin latch in a consequence. Firing pin strikes detonator, and after ignited ignition charge.

REFERENCE

- SOLAS 1999/2000-5 April 2001
- LSA Code-25 September 1998
- Resolution MSC.81(70)-11 December 1998
- 96/98 EC Directive 10 July 2001



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koryo Pyrotechnics Co.,Ltd.

Line-Throwing Appliance

K-21



SPECIFICATIONS

• Size :	Case	450x420.5x170㎜
	Projectile	ø42x375㎜
	Firing Tube	ø47x360㎜
	Life Line	320m(±10%)
• Weight :	Case	850g
	Rocket	1,000g
	Firing Tube	1,600g
• Materials :	Case	Resin
	Projectile line	Carbon steel
	Firing Tube	Aluminum
	Life Line	Nylon rope

• Propelling Type : Rocket propulsion of detonator striking



USE

Line-throwing appliance K-21 should be used that quickly and accurately rescue of a vessel or human life at a far-off place.

CERTIFICATIONS

Obtained MED

• Certificate No : MED-MB-1012-10

MAINTAIN

• Expiry Period : 3 years

FUNCTION

• Propelling distance : Min.230m

PACKING

• Line-Throwing Appliance
1 Set /1Carton

Rocket	4
Firing Gun	1
Life Line	4
Firing Tube	1
Cartridge	5
Screw-Driver for cartridge	1



OPERATION

1. After fixed one end of the end of the life line that is located bottom of the life line box to a ship body, and connected upper of it to the rope attached to the rocket and the cartridge is loaded to the bottom of the firing tube.
2. Fix together the prepared firing tube and firing gun fitting boss in slot of rocket and insert the prepared rocket into the firing tube.
3. When the life line is launched by pulling trigger of the K-21, the rocket will launch carrying line to the target.

REFERENCE

- SOLAS 1999/2000-5 April 2001
- LSA Code-25 September 1998
- Resolution MSC.81(70)-11 December 1998
- 96/98 EC Directive 10 July 2001

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KORYO Pyrotechnics Co.,Ltd.

First Aid Kit



USE

For emergency measure of a patient on the sea.

SPECIFICATIONS

- Size : 280x360㎜
- Materials : PET+Al+PE
- Weight : 900g



CONTENTS

Article	Standard	Quantity	Remarks
Bandage	10cm×540cm	5 EA	Expiry Period: 3 years (cf. marked separately for some articles)
	5cm×540cm	8 EA	
Eyepatch	-	3 EA	
Tourniquet	-	1 EA	
Pincette	-	1 EA	
Scissors	-	1 EA	
Safety pin	-	12 EA	
Splint	-	1 EA	
Betasol	20tablets	1 EA	
Sedabon	100tablets	1 EA	
Furasolon Ointment	15g	3 EA	
Ophthalmic Ointment	3.5g	2 EA	
Vaseline Gauze	-	12 EA	
Adhesive Tape	1cm×3m	3 EA	
Gauze	45cm×45cm	3 EA	
Triangular Bandage	105cm×105cm×150cm	3 EA	
Povidone-Iodine	25cc	2 BOTTLES	

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koryo Pyrotechnics Co.,Ltd.

Marine Fixed Condensed Aerosol Fire-Extinguishing Systems

Equivalent fixed gas fire extinguishing systems for machinery spaces (aerosol systems)



Certificate Authority

- KR HELLAS LTD.

Certificate No.

- MED-MB-3012-11

MED Item No.

- A.1/3/46

Specific Standards

- SOLAS 1974 as amended, Regulation II-2/10, X/3
- IMO Res.MSC.36(63)-(1994 HSC code)7,
- IMO Res.MSC.97(73)-(2000 HSC code)7,
- IMO Res.MSC.98(73)-(FSS code)5,
- IMO MSC.1/Cire.1270

※ MED certified Fire control panel and detectors are used

Specifications

※ Oil Fire Standard

No.	Model	Weight of extinguishing agent(g)	Protected volume(m^3)	Length (mm)	Diameter (mm)	Discharge time (sec)	Operation	Use
1	KF-50S	50	0.65	93.4	54.0	≒ 7	Electrically	Machinery Spaces
2	KF-100S	100	1.30	116.2	71.0	≒ 11		
3	KF-300S	300	3.89	166.7	92.1	≒ 11		
4	KF-500S	500	6.49	224.0	116.0	≒ 14		
5	KF-850S	850	11.03	262.0	137.0	≒ 14		
6	KF-1500S	1500	30.00	273.0	247.0	≒ 21		
7	KF-3000S	3000	60.00	335.0	306.0	≒ 23		
8	KF-6300S	6300	100.00	379.0	415.0	≒ 20		

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KORYO Pyrotechnics Co.,Ltd.

PRODUCTS LIST

선박용신호기 Signce 1976



로켓낙하산신호
Rocket Parachute Flare



신호홍염
Red Hand Flare



발연부신호
Buoyant Smoke Signal



자기발연부신호
Self-Activating Smoke Signal



조연식신호기
Light-Smoke Signal



자기점화등
Lifebuoy Self-lgniting Light



자기점화등(점멸식)
Lifebuoy Self-lgniting Light (Flash light type)



구명줄발사기
Lifebuoy Self-lgniting (Flash light type)



구명줄발사기
Line-Throwing Appliance



응급의료구
First Aid Kit



무인기관실용 자동소화장치



무인기관실용 자동소화장치

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