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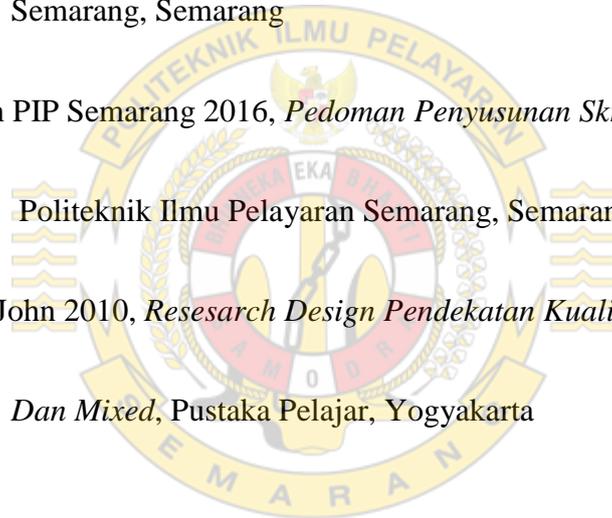
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Dan Mixed, Pustaka Pelajar, Yogyakarta



DAFTAR RIWAYAT HIDUP



1. Nama Lengkap : Tri Suryo Pranoto
2. Tempat / Tanggal Lahir : Batang, 13 Januari 1994
3. NIT : 49124496. N
4. Alamat Asal : Dk. Gendogosari RT:06/RW: 05
Ds. Krengseng Kec. Gringsing Kab. Batang
5. Agama : Islam
6. Jenis kelamin : Laki-laki
7. Golongan darah : B
8. Nama Orang Tua
 - a. Ayah : Abdul Azis
 - b. Ibu : Siti Zaenab
9. c. Alamat Orang Tua :
10. Riwayat Pendidikan
 - a. SD : MII KRENGSENG tahun 2000
– 2006
 - b. SMP : SMP N 3 GRINGSING tahun
2006 - 2009
 - c. SMA : SMA N 1 GRINGSING tahun
2009 - 2012
 - d. Perguruan Tinggi : PIP Semarang, tahun 2012 - Sekarang
11. Pengalaman Pratek Laut
 - a. Perusahaan Pelayaran : PT. Waruna Nusa Sentana
 - b. Nama Kapal : MT. Champion One
 - c. Masa Layar : 06 Januari 2015 – 09 Januari 2016

LAMPIRAN 1

HASIL WAWANCARA

A. DAFTAR RESPONDEN

NO.	NAMA	JABATAN	KETERANGAN
1.	Agung Nugroho	Chief Officer	Responden I
2.	Maryoto	Chief Officer	Responden II
3.	Rizal	Able Seaman	Responden III
4.	Andi	Surveyor	Responden IV

B. HASIL WAWANCARA TAK LANGSUNG

Responden 1 (Chief Officer)

1. Kapan terjadinya keterlambatan pembongkaran muatan marine fuel oil di MT. Champion One ?

Jawaban :

Keterlambatan pembongkaran muatan marine fuel oil di MT. Champion One terjadi pada tanggal 25 – 30 Agustus 2015

2. Mengapa bisa terjadi keterlambatan pembongkaran muatan *marine fuel oil* di MT. Champion One?

Jawaban :

Keterlambatan pembongkaran muatan *marine fuel oil* terjadi karena terjadinya kerusakan pada *boiler* yang mengakibatkan steam tidak berjalan dengan baik.

3. Siapa yang bertanggung jawab atas kejadian tersebut ?

Jawaban :

Yang bertanggung jawab atas kejadian keterlambatan pembongkaran muatan yaitu saya sendiri. Karena tentang muatan saya yang bertanggung jawab.

4. Dimana keterlambatan pembongkaran terjadi ?

Jawaban :

Keterlambatan pembongkaran muatan *marine fuel oil* di MT. Champion One terjadi saat kapal MT. Champion One melaksanakan pembongkaran muatan di dermaga Tanjung Priok.

Responden II (Chief Engineer)

1. Mengapa bisa terjadi keterlambatan pembongkaran muatan *marine fuel oil* di MT. Champion One ?

Jawaban :

keterlambatan pembongkaran muatan *marine fuel oil* di MT. Champion One Karena pada saat sebelum pembongkaran chief officer tidak memerintahkan untuk muatan dipanaskan dan hasil muatan tidak bisa dibongkar karena mengeras.

2. Apa pada saat pembongkaran terjadi kerusakan pada *boiler* ?

Jawaban :

Pada saat terjadi pembongkaran *boiler* mengalami kerusakan pada pipa sistem pemanas yang mengakibatkan *boiler* tidak bisa menghasilkan steam untuk memanasi muatan dalam tanki.

3. Bagaimana tindakan yang dilakukan dengan adanya kerusakan pada boiler?

Jawaban :

Tindakan yang dilakukan yaitu memperbaiki *boiler* dengan cara mengelas pipa-pipa yang bocor . dan tindakan untuk jangka panjang harus segera melakukan *dry dock*.

Responden III (Able Seaman)

1. Apakah bapak sebelumnya pernah dikapal tanker?

Jawaban :

Pengalaman saya baru pertamakali ini pada kapal tanker det.

2. Apakah pernah melakukan kesalahan saat diperintah sama mualim ?

Jawaban :

Kesalahan saat diperintah mualim terjadi waktu membuka pipa *steam distributor* det.

Responden IV (Surveyor)

1. Dikapal MT. Champion One tidak terdapat MSDS, Apakah bapak sudah memberikan MSDS?

Jawaban :

Iya det saya hamper tidak memberikan MSDS dan seharusnya saya memberikan itu. Makasih sudah di ingatkan

2. Untu pembongkaran muatan marine fuel oil harus berapa suhu/temperatur pak ?

Jawaban :

Untuk pembongkaran pada MFO (Marine fuel oil) normalnya harus 50°.

NAME OF VESSEL : MT. CHAMPION ONE
 FLAG : INDONESIA
 OWNER : PT. WARUNA NUSA SENTANA
 PORT REG : JAKARTA
 DATE ARR/ DEPT. : 02 OKTOBER 2015

CALL SIGN : YFPG
 GRT : 22560 T
 DWT : 36362 T
 LAST PORT : CILACAP
 NEXT PORT : -



CREW LIST

NO	NAME	RANK	CERTIFICATE	CERT. NO	Place Of Birth	SEAMEN BOOK		AGREEMENT
						NO	EXP	
1	Capt. M'rat	Nakhoda	ANT I/15	6200125482N10215	Mangrove, 06.09.1962	B.076835	26.06.16	PK.301/11/KSOP-CLP-1
2	Ayung Nugroho	Mualim I	ANT I/09	6200064030N10214	Semarang, 06.12.1975	A.001015	30.09.16	PK.669/PKL128X/UKSOP-BPN-2014
3	Sugeng	Mualim II	ANT II/09	6200092060N20309	Pekalongan, 13.12.1977	B.083985	26.09.16	PK.301/2812/UKSOP-CLP-14
4	Aristya Nurwajaya	Mualim III	ANT III/14	6201640483N30314	Karanganyar, 02.03.1992	Y.035166	18.05.16	PK.669/PKL215X/UKSOP-BPN-2014
5	Rhinolska Putra	KKM	ATT I/05	62000899094T10105	Jakarta, 28.11.1971	B.089816	31.07.16	PK.301/07/12/UUP-TUB-2015
6	Mariyoto	Masinis I	ATT IV/10	6200409414120310	Sragen, 24.01.1980	C.005903	06.10.16	PK.669/PKL127X/UKSOP-BPN-2014
7	Mohamad Eryan	Masinis II	ATT III/04	6201000513130103	Karawang, 30.01.1975	D.012441	21.10.17	PK.301/2813/UKSOP-CLP-14
8	Bayu Ali Sukarno	Masinis III	ATT III/15	6201667496130315	Karanganyar, 06.01.1990	A.026276	16.04.17	PK.301/11/KSOP-CLP-1
9	Anwar Ramli	Boatin	ANT D/01	6200477283N60307	Bekoa, 16.05.1991	C.013173	21.10.16	PK.301/2816/UKSOP-CLP-14
10	Takdir	Mandor	ATT D/02	6200060113160902	Pelopo, 22.11.1970	A.067592	14.09.17	PK.301/2814/UKSOP-CLP-14
11	Agus Pratikto	Electrician	ATT D/13	6200481677180708	Kebumen, 01.08.1962	C.0690767	30.04.17	PK.301/2815/UKSOP-CLP-14
12	Iskandar Eduard Gobel	Pumpman	ANT D/02	6200510764N60102	Molokapu, 21.08.1957	C.028524	12.12.16	PK.301/07/13/UUP-TUB-2015
13	Muhammad Rijalis	Juru Mudi	ANT D/02	6200478525N60710	Jakarta, 25.12.1987	C.070674	26.06.17	PK.301/52/20/UKSOP/DM/20
14	Andi Verry Hidarjo	Juru Mudi	ANT D/12	6200415314N60112	Jakarta, 11.07.7974	A.036724	27.04.17	PK.669/PKL5401/UKSOP-BPN-2015
15	Richo Awulie	Juru Mudi	ANT D/02	6200060629N60204	Tanah, 10.05.1964	X.022310	08.03.17	PK.301/2817/UKSOP-CLP-14
16	Fidelius Sipra	Oiler	ANT D/03	6200201622T06009	Bejianduk, 10.02.1987	X.074770	25.08.17	PK.669/PKL128X/UKSOP-BPN-2014
17	Rohman Santoso	Oiler	ATT D/02	6200031241T80102	Jakarta, 30.11.1959	Y.063417	27.07.16	PK.301/2818/UKSOP-CLP-14
18	Sudirman	Oiler	ATT D/08	6200079539T60108	Palopo, 02.04.1970	B.066995	15.07.16	PK.301/52/19/UKSOP/DM/20
19	Andal	Kelasi	ANT D/13	62003806151N60213	Buntur, 01.02.1974	W.059464	02.08.16	PK.301/2/24/UKSOP-CLP-15
20	Acep Sauman Sumpena	Koki	ANT D/12	620013241BN60712	Sukabumi, 06.09.1957	B.047587	26.02.16	PK.669/PKL5501/UKSOP-BPN-2015
21	Subaidi	Pelayan	ANT D/09	62004896461N60208	Banjarkalan, 07.09.1978	Y.063196	27.10.16	PK.301/2/25/UKSOP-CLP-15
22	Harjono Efendi	Pelayan	ANT D/09	6200478343N60710	Jakarta, 30.05.1977	T.062732	01.07.17	PK.301/52/21/UKSOP/DM/20
23	Cahaya Jahya Marthin	C/Deck	BST	6202012248010110	Jakarta, 19.10.1993	C.026758	06.12.16	-
24	Tri Suwo Pranoto	C/Deck	BST	6211405006010310	Batang, 13.01.1994	C.062094	25.06.17	-
25	Izza Aidil Afriza	C/Deck	BST	6211520306010315	Semarang, 31.01.1965	D.075081	08.06.18	-
26	Rifky Ahmad Paialah	C/Masin	BST	6211467224010110	Jakarta, 22.07.1994	D.009817	10.10.17	-
27	Maiyunda Putra	C/Masin	BST	6202133349010119	Kalungpang, 24.05.1991	D.003735	09.09.17	-
28	Yoga Pratama	C/Masin	BST	6202004642010110	Tg. Jawa, 14.04.1994	C.063815	23.04.17	-
29	Rizal Rahim	C/Masin	BST	6202191431010413	Bukitamba, 18.11.1995	C.089578	31.08.18	-

Mengantarhul,

Capt. M'rat
Nakhoda



COMPARTMENT LOGSHEET

BEFORE DISCHARGING

NAME OF VESSEL : **MT. CHAMPION ONE**
 PORT : **TG. PRIOK**
 DATE : **25-AGUST-15**
 VOYAGE NO. : **01/D/VIII/15**

DRAFT (METERS) **F 08,60 A 08,60 M 08,60**

CARGO TANKS NO	GRADE	CORRECTED ULLAGE (3)	TANKS OBSERVATION		NETT OIL (7)	TEMP (8)	API (9)	DENSITY @ 15 C (10)	VOL. COR FACTOR (T. 94) (11)	NETT KL @ 15 C (12)	VOLUME CONN. FACTOR (T. 82) (13)	BARRELS @ 60 F (14)	WEIGHT CONN. FACTOR (T. 57) (15)	LONGTON (16)	METRICTON (17)
			GROSS VOL. (KL) (4)	FREE WATER (5)											
PORT 1	LSWR	04,635	00,000	Nil	0,000	67,0	14,1	0,9714	0,965656	0,000	6,292	0,000	0,9550	0,000	0,000
PORT 2	LSWR	05,664	00,000	Nil	0,000	66,5	14,1	0,9714	0,965956	0,000	6,292	0,000	0,9550	0,000	0,000
PORT 3	MFO 2	09,256	2575,790	Nil	2,575,790	48,0	14,1	0,9714	0,878028	2,519,195	6,292	15,850,773	0,9550	2,405,831	2,444,445
PORT 4	LSWR	07,461	00,000	Nil	0,000	67,0	14,1	0,9714	0,965656	0,000	6,292	0,000	0,9550	0,000	0,000
PORT 5	LSWR	06,989	00,000	Nil	0,000	65,0	14,1	0,9714	0,966956	0,000	6,292	0,000	0,9550	0,000	0,000
PORT SL	-	00,000	0,000		41,28	0,000				0,000					0,000
STBD 1	LSWR	04,846	00,000	Nil	0,000	67,5	14,1	0,9714	0,965356	0,000	6,292	0,000	0,9550	0,000	0,000
STBD 2	LSWR	05,614	00,000	Nil	0,000	67,0	14,1	0,9714	0,965656	0,000	6,292	0,000	0,9550	0,000	0,000
STBD 3	MFO 2	09,706	2428,800	Nil	2,428,800	48,0	14,1	0,9714	0,878028	2,375,434	6,292	14,946,233	0,9550	2,268,540	2,304,850
STBD 4	LSWR	07,512	00,000	Nil	0,000	67,5	14,1	0,9714	0,965356	0,000	6,292	0,000	0,9550	0,000	0,000
STBD 5	LSWR	07,808	00,000	Nil	0,000	64,5	14,1	0,9714	0,967256	0,000	6,292	0,000	0,9550	0,000	0,000
STBD SL	-	00,000	0,00		0,000					0	0,000				0,000
TOTAL	MFO 2		5,004,590		0,00	5,004,590				4,894,629		30,797,007		4,674,371	4,749,394
			Sludge orb		450,000										
B/L	MFO 2		5,006,296		4,899,440		4,678,966		4,754,153		30,827,276				
SFAL			5,005,830		4,897,367		4,676,986		4,752,051		30,814,234				
SFBD			5,004,590		4,894,629		4,674,371		4,749,394		30,797,007				
DIFFERENCE			-1,24		-2,74		-2,62		-2,657		-17,227				
PERCENTAGE			-0,02%		-0,06%		-0,06%		-0,06%		-0,06%				

REMARKS:

- 1. Alat ukur : MMC semua yang dipakai di Loading Port
- 2. No Approval Table : 030 978430240 / Tg: 28.02.2015
- 3. Jumlah Free Water : Lihat di kolom Compenemen Logsheet
- 4. Kondisi Laut : Slight Sea
- 5. Kepadatan : Density 15 taken from Loading Port
- 6. LeadSheet : Nil

Said

Taufik Nur Alami

Aris

Aquna Nugroho



LAMPIRAN PUMPING RATE

CHAMPION ONE

LOADING / PUMPING RATE LOG

OY No. : 01 B/D/COV/III/2015
 CARGO/Q/T MFO : 16,381.72 KL

PORT : TG PRICK
 DATE : 26-27 August

TANK NO	04:00 Hrs		05:00 Hrs		06:00 Hrs		07:00 Hrs		08:00 Hrs		09:00 Hrs		10:00 Hrs		11:00 Hrs		12:00 Hrs		13:00 Hrs		14:00 Hrs			
	U/I	KL	U/I	KL	U/I	KL	U/I	KL	U/I	KL	U/I	KL	U/I	KL	U/I	KL	U/I	KL	U/I	KL	U/I	KL		
1P	15.17	625.8	15.17	625.8	15.17	625.8	15.17	625.8	15.17	625.8	15.17	625.8	16.15	590.2	16.28	330.0	16.28	330.0	16.28	330.0	16.28	330.0	17.00	140.7
1S	15.14	634.4	15.14	634.4	15.14	634.4	15.14	634.4	15.14	634.4	15.14	634.4	15.14	634.4	15.14	634.4	15.14	634.4	15.14	634.4	15.14	634.4	15.14	634.4
2P	13.41	979.0	13.41	979.0	13.41	979.0	13.41	979.0	14.16	803.1	14.87	637.0	15.08	587.9	15.15	571.0	15.50	489.7	15.50	489.7	15.50	489.7	15.50	489.7
2S	13.43	969.0	13.43	969.0	13.43	969.0	13.43	969.0	14.15	800.2	14.88	629.5	15.11	576.1	15.11	576.1	15.11	576.1	15.11	576.1	15.11	576.1	15.11	576.1
3P																								
3S																								
4P	14.55	705.9	14.55	703.7	14.55	703.7	14.55	703.7	14.55	703.7	14.55	703.7	14.55	703.7	15.43	501.0	16.00	369.6	16.33	293.7	16.57	236.6		
4S	14.18	790.2	14.55	703.7	14.55	703.7	14.55	703.7	14.55	703.7	14.55	703.7	14.55	703.7	15.43	500.0	15.67	445.7	16.33	293.7	16.22	319.3		
5P	13.70	819.0	13.70	819.0	14.61	714.7	15.25	488.3	15.25	488.3	15.25	488.3	15.25	488.3	15.25	488.3	15.25	488.3	15.25	488.3	15.25	488.3	15.25	488.3
5S	13.46	864.0	13.46	864.0	14.16	624.5	15.06	522.7	15.06	522.7	15.06	522.7	15.06	522.7	15.06	522.7	15.06	522.7	15.06	522.7	15.06	522.7	15.06	522.7
SLOP P																								
SLOP S																								
Total on board		6387		6055		5711		5383		5038		4701		4419		4124		3857		3629		3408		
Load/To go/Disch. on (D/L)		6387		6055		5711		5383		5038		4701		4419		4124		3857		3629		3408		
RATE(KL)		414		333		344		328		345		337		282		296		267		228		221		
To go time	15H25M	18H10M	16H36M	16H24M	14H36M	13H55M	13H40M	13H55M	14H26M	15H54M	13H55M	14H26M	15H54M	15H25M	15H25M									
E.T.C	19.25Hrs/27	23.10Hrs/27	22.36Hrs/27	23.24Hrs/27	22.36Hrs/27	22.56Hrs/27																		
USED PUMPING LINE	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
NO. PUMPING LINE	5	5.1	5.2	5	5.2	5.3	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1		
Remark	Common discharged : 25.08.2015/19.12 LT Completed discharge : 28.08.2015/09.30 LT																							

AMPION ONE

No. : 01 B/D/CO/VIII/2015
 ARGO-Q/T MFO 2 : 5004.59 KL

LOADING / PUMPING RATE LOG

PORT :
 DATE : 28 August 2015

TG PRIOR

TANK NO	15.30	16.00	17.00	18.00	19.00	20.00	21.00	22.00	23.00	24.00	01.00	01.00										
	U/I	KL	U/I	KL	U/I	KL	U/I	KL	U/I	KL	U/I	KL										
1P																						
1S																						
2P																						
2S																						
3P	9.26	2575.7	9.48	2505.9	9.63	2452.8	9.56	2424.3	9.66	2405.2	10.09	2315.5	10.34	2237.5	10.63	2147.1	10.89	2066.0	11.31	1991.1	11.42	1900.6
3S	9.71	2428.8	9.58	2468.1	9.57	2415.1	9.56	2413.3	9.75	2413.1	10.03	2327.9	10.28	2249.8	10.52	2175.0	10.84	2066.0	11.03	2016.0	11.36	1913.1
4P																						
4S																						
5P																						
5S																						
SLOP P																						
SLOP S																						
Total on board		5005		4974		4868		4840		4820		4643		4487		4322		4132		4007		3814
Land To go/Disch'd (KCL)		5005		4974		4868		4840		4820		4643		4487		4322		4132		4007		3814
Rate/(KL)				31		106		28		20		177		156		165		190		125		193
To go time				160H27M		45H53M		172H51M		241H0M		261H3M		281H45M		26H11M		21H44M		32H3M		19H45M
E.T.C				08.27Hrs/07		14.55Hrs/30		22.31Hrs/06		01.00Hrs/09		22.13Hrs/29		01.45Hrs/30		00.11Hrs/30		20.44Hrs/29		08.03Hrs/31		20.45Hrs/29
USED PUMP/TIME		1		1		1		1		1		1		1		1		1		1		1
MPR (Discharge)		5		5.1		5.2		5		5.2		5		5		5		5		5		4.9
Remark	Comm. discharged : 28.08.2015/ 15.30 LT Completed discharge : 29.08.2015/ 22.42 LT																					

LOADING MASTER

AGUNG NIGROHO
 CHIEF OFFICER

CHAMPION ONE

LOADING / PUMPING RATE LOG

Job No. : 01 B/D/CO/VIII/2015
 ARGO/QT MFO : 16,381.72 KL

PORT : TG PRION
 DATE : 26 August 2015

TANK NO	06:00 Hrs	07:00 Hrs	08:00 Hrs	09:00 Hrs	10:00 Hrs	11:00 Hrs	12:00 Hrs	13:00 Hrs	14:00 Hrs	15:00 Hrs	16:00 Hrs
1P	U/I 11.35 K/L 1591.7	U/I 11.55 K/L 1591.7	U/I 11.55 K/L 1591.7	U/I 11.55 K/L 1591.7	U/I 11.55 K/L 1591.7	U/I 11.55 K/L 1591.7	U/I 11.55 K/L 1591.7	U/I 11.55 K/L 1591.7	U/I 12.05 K/L 1458.2	U/I 12.05 K/L 1458.2	U/I 12.05 K/L 1458.2
1S	U/I 11.50 K/L 1606.1	U/I 11.50 K/L 1606.1	U/I 11.50 K/L 1606.1	U/I 11.50 K/L 1606.1	U/I 11.50 K/L 1606.1	U/I 11.50 K/L 1606.1	U/I 11.50 K/L 1606.1	U/I 11.50 K/L 1606.1	U/I 12.00 K/L 1472.5	U/I 12.00 K/L 1472.5	U/I 12.00 K/L 1472.5
2P	U/I 10.20 K/L 1730.1	U/I 10.20 K/L 1730.1	U/I 10.20 K/L 1730.1	U/I 10.20 K/L 1730.1	U/I 10.20 K/L 1730.1	U/I 10.20 K/L 1730.1	U/I 10.20 K/L 1730.1	U/I 10.20 K/L 1730.1	U/I 11.55 K/L 1414.0	U/I 11.55 K/L 1414.0	U/I 11.55 K/L 1414.0
2S	U/I 10.18 K/L 1729.1	U/I 10.18 K/L 1729.1	U/I 10.18 K/L 1729.1	U/I 10.18 K/L 1729.1	U/I 10.18 K/L 1729.1	U/I 10.18 K/L 1729.1	U/I 10.18 K/L 1729.1	U/I 10.18 K/L 1729.1	U/I 11.53 K/L 1413.3	U/I 11.53 K/L 1413.3	U/I 11.53 K/L 1413.3
3P											
3S											
4P	U/I 10.97 K/L 1544.1	U/I 10.97 K/L 1544.1	U/I 10.97 K/L 1544.1	U/I 10.97 K/L 1544.1	U/I 10.97 K/L 1544.1	U/I 10.97 K/L 1544.1	U/I 10.97 K/L 1544.1	U/I 11.37 K/L 1450.3	U/I 11.59 K/L 1305.1	U/I 11.59 K/L 1305.1	U/I 11.59 K/L 1305.1
4S	U/I 10.90 K/L 1557.7	U/I 10.90 K/L 1557.7	U/I 10.90 K/L 1557.7	U/I 10.90 K/L 1557.7	U/I 10.90 K/L 1557.7	U/I 10.90 K/L 1557.7	U/I 10.90 K/L 1557.7	U/I 11.30 K/L 1443.0	U/I 11.80 K/L 1347.0	U/I 11.80 K/L 1347.0	U/I 11.80 K/L 1347.0
5P	U/I 9.43 K/L 1733.2	U/I 10.06 K/L 1598.2	U/I 10.81 K/L 1437.8	U/I 11.53 K/L 1283.7	U/I 11.61 K/L 1266.6	U/I 11.92 K/L 1193.9					
5S	U/I 9.45 K/L 1722.3	U/I 10.00 K/L 1604.7	U/I 10.69 K/L 1457.0	U/I 11.45 K/L 1294.4	U/I 11.53 K/L 1277.3	U/I 11.92 K/L 1193.9					
SLOP P											
SLOP S											
total on board	13214	12962	12654	12337	11987	11692	11462	11221	10954	10708	10408
Load/To 27/bleed/ (KL)	13214	12962	12654	12337	11987	11692	11462	11221	10954	10708	10408
RATE/(KL)	207	253	308	317	350	295	230	241	267	246	300
To go time	63HS/0M	51HS/1M	41HS/5M	38HS/5M	34HS/1M	39HS/8M	49HS/0M	46HS/3M	41HS/1M	43HS/1M	34HS/1M
E.T.C	21.50Hrs/28	10.13Hrs/28	01.05Hrs/28	23.55Hrs/27	17.20.14Hrs/27	02.38Hrs/28	13.50Hrs/28	11.35Hrs/28	07.01Hrs/28	10.31Hrs/28	02.41Hrs/28
REMARKS	5	5.1	5.2	5	5.2	1	1	1	1	1	1
Remark	Comm. discharged : 25.08.2015/ 19.13 LT Completed discharge : 28.08.2015/ 09.30 LT										

HAMPION ONE

200

15

LOADING / PUMPING RATE LOG

JY No. : 01 B/D/CO/III/2015
 CARGO Q'T MFO 5,004.59 KL

PORT : TIG PRIORITY
 DATE : 29 August 2015

TANK NO	02.00 Ull	Hrs KL	03.00 Ull	Hrs KL	04.00 Ull	Hrs KL	05.00 Ull	Hrs KL	06.00 Ull	Hrs KL	07.00 Ull	Hrs KL	08.00 Ull	Hrs KL	09.00 Ull	Hrs KL	10.00 Ull	Hrs KL	11.00 Ull	Hrs KL	12.00 Ull	Hrs KL	
1P																							
2P																							
3P	11.75	1797.7	12.09	1691.6	12.37	1604.2	12.65	1516.8	12.97	1416.9	13.24	1332.7	13.56	1233.0	13.89	1130.1	14.01	1092.6	14.05	1080.2	14.10	1064.6	
3S	11.71	1804.0	12.04	1791.1	12.34	1607.2	12.63	1517.1	12.94	1420.5	13.21	1336.4	13.52	1239.8	13.85	1136.9	14.35	981.2	14.75	856.7	15.26	700.3	
4P																							
4S																							
5P																							
5S																							
SLOP P																							
SLOP S																							
Total on board		3602		3483		3211		3034		2837		2669		2473		2267		2074		1937		1765	
Load/To go/Disch'd (KG)		3602		3483		3211		3034		2837		2669		2473		2267		2074		1937		1765	
RATE(KL)		212		119		271		178		197		168		196		206		193		137		172	
To go time	16H59M		29H16M		11H50M		17H2M		14H24M		15H53M		12H37M		11H0M		10H44M		14H8M		10H15M		
E.T.C	18.05Hrs/29		08.16Hrs/30		15.50Hrs/29		22.02Hrs/29		20.24Hrs/29		21.53Hrs/29		20.37Hrs/29		20.00Hrs/29		20.44Hrs/29		01.8Hrs/29		22.15Hrs/29		
MT. PHOSPHORUS	1		1		1		1		1		1		1		1		1		1		1		
MT. PHOSPHORUS	5		5.1		5.2		5.2		5.2		5		5		5		5		5		5		4.9
Remark	Comm. discharged : 28.08.2015/ 15.30 LT Completed discharge : 29.08.2015/ 22.42 LT																						

HAMPION ONE

100

LOADING / PUMPING RATE LOG

152

JY No. : 01 B/D/CO/VIII/2015
 CARGO/Q'T MFO : 5,004.59 KL

PORT :
 DATE : 29 August 2015

TANK NO	02.00 Hrs	03.00 Hrs	04.00 Hrs	05.00 Hrs	06.00 Hrs	07.00 Hrs	08.00 Hrs	09.00 Hrs	10.00 Hrs	11.00 Hrs	12.00 Hrs
1P	Ull	Ull									
1S											
2P											
2S											
3P	11.75 1797.7	12.09 1691.6	12.37 1604.2	12.65 1516.8	12.97 1416.9	13.24 1332.7	13.56 1233.0	13.89 1130.1	14.01 1092.6	14.05 1080.2	14.10 1064.6
3S	11.71 1804.0	12.04 1791.1	12.34 1607.2	12.63 1517.1	12.94 1420.5	13.21 1336.4	13.52 1239.8	13.85 1136.9	14.35 981.2	14.75 856.7	15.26 700.3
4P											
4S											
5P											
5S											
SLOP P											
SLOP S											
Total on board	3602	3483	3211	3034	2837	2669	2473	2267	2074	1937	1765
Load/To avg/bedded (KL)	3602	3483	3211	3034	2837	2669	2473	2267	2074	1937	1765
RATE(KL)	212	119	271	178	197	168	196	206	193	137	172
To go time	16H59M	29H16M	11H50M	17H2M	14H24M	15H53M	12H37M	11H0M	10H44M	14H8M	10H15M
E.T.C	18.05Hrs/29	08.16Hrs/30	15.50Hrs/29	22.02Hrs/29	20.24Hrs/29	21.53Hrs/29	20.37Hrs/29	20.00Hrs/29	20.44Hrs/29	01.8Hrs/29	22.15Hrs/29
USED PUMP/LINE	1	1	1	1	1	1	1	1	1	1	1
MP PRESSURE(WD)	5	5,1	5,2	5	5,2	5	5	5	5	5	4,9
Remark	Comm. discharged : 28.08.2015/ 15.30 LT Completed discharge : 29.08.2015/ 22.42 LT										

CHAMPION ONE

LOADING / PUMPING RATE LOG

BOY No. : 01 B/D/CO/VIII/2015
 CARGO/Q/T MFO : 5,004.59 KL

PORT : TG.PRIOK
 DATE : 29 August 2015

TANK NO	Ull	Hrs	Ull	Hrs	Ull	Hrs	Ull	Hrs	Ull	Hrs	Ull	Hrs	Ull	Hrs	Ull	Hrs	Ull	Hrs	Ull	Hrs		
1P																						
1S																						
2P																						
2S																						
3P	13.52	1245.4	14.37	980.0	14.43	961.7	14.49	943.0	14.58	914.9	14.61	903.6	15.01	781.0	15.46	641.7	15.91	502.4	16.37	399.6		
3S	16.01	471.8	16.19	413.9	16.54	306.8	17.17	100.8	17.26	80.9	17.26	0.0	0.0	0.0	0.00	0.0	0.00	0.0	0.00	0.0		
4P																						
4S																						
5P																						
5S																						
SLOPP P																						
SLOPP S																						
Total on board		1717		1396		1269		1054		996		906		781		642		502		360		0
Land To go/Disch'd (SD)	1717		1396		1269		1054		996		906		781		642		502		360		0	
RATE(KL)	48		321		127		215		58		90		125		139		139		143		360	
To go time			4H20M		9H59M		4H54M		17H10M		10H3M		6H14M		4H37M		3H36M		2H31M			
E.T.C			18.20Hrs/29		00.59Hrs/30		20.54Hrs/29		10.10Hrs/30		04.03Hrs/30		01.14Hrs/30		00.37Hrs/30		00.36Hrs/30		00.31Hrs/30			
ESD0 PUMP/LINE	1		1		1		1		1		1		1		1		1		1			
MR. PUMP/OPERATOR	5		5.1		5.2		5		5.2		5		5		5		5		5			
Remark	Command discharged : 28.08.2015/ 15.30 ET Completed discharge : 29.08.2015/ 22.42 LT																					

M/T: CHAMPION ONE

VOY No. : 01 B/D/CO/VIII/2015
 CARGO/QT INFO 1 : 16,381.72 KL

LOADING / PUMPING RATE LOG

PORT :
 DATE : 25 August 2015

TANK NO	19.12		20.00		21.00		22.00		23.00		24.00		01.00		02.00		03.00		04.00		05.00			
	UHI	KL	UHI	KL	UHI	KL	UHI	KL	UHI	KL	UHI	KL	UHI	KL	UHI	KL	UHI	KL	UHI	KL	UHI	KL		
1P	7.57	2653.2	8.12	2507.2	8.66	2363.1	9.23	2205.5	9.81	2056.1	10.43	1890.6	11.04	1729.4	11.55	1591.7	11.50	1606.1	11.50	1606.1	11.50	1606.1	11.50	1606.1
1S	8.06	2514.8	8.78	2492.7	8.68	2159.2	9.23	2212.3	9.82	2054.7	10.43	1891.8	11.04	1728.1	11.50	1606.1	11.50	1606.1	11.50	1606.1	11.50	1606.1	11.50	1606.1
2P	8.48	2132.2	8.48	2132.2	8.48	2132.2	8.48	2132.2	8.48	2132.2	8.48	2132.2	8.48	2132.2	8.38	2156.1	8.83	2050.8	9.49	1896.3	10.20	1790.1	10.18	1729.1
2S	7.71	2307.3	7.71	2307.3	7.71	2307.3	7.71	2307.3	7.71	2307.3	7.71	2307.3	7.71	2307.3	8.02	2234.6	8.80	2052.0	9.47	1895.3	10.18	1729.1		
3P																								
3S																								
4P	10.97	1544.1	10.97	1544.1	10.97	1544.1	10.97	1544.1	10.97	1544.1	10.97	1544.1	10.97	1544.1	10.97	1544.1	10.97	1544.1	10.97	1544.1	10.97	1544.1	10.97	1544.1
4S	10.90	1557.7	10.90	1557.7	10.90	1557.7	10.90	1557.7	10.90	1557.7	10.90	1557.7	10.90	1557.7	10.90	1557.7	10.90	1557.7	10.90	1557.7	10.90	1557.7	10.90	1557.7
5P	8.92	1842.6	8.92	1842.6	8.92	1842.6	8.92	1842.6	8.92	1842.6	8.92	1842.6	8.92	1842.6	8.92	1842.6	8.92	1842.6	8.92	1842.6	8.92	1842.6	8.92	1842.6
5S	9.00	1819.4	9.00	1819.4	9.00	1819.4	9.00	1819.4	9.00	1819.4	9.00	1819.4	9.00	1819.4	9.00	1819.4	9.00	1819.4	9.00	1819.4	9.00	1819.4	9.00	1819.4
SLOP P																								
SLOP S																								
Total on board	16381		16203		15926		15621		15314		14986		14661		14352		14064		13753		13421		13110	
Load/To go (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100)	16381	16203	15926	15621	15314	14986	14661	14352	14064	13753	13421	13110	12800	12490	12180	11870	11560	11250	10940	10630	10320	10010		
Rate (KL)	178	178	278	305	307	328	325	309	288	288	311	332												
To go time	91H1M	91H1M	57H17M	51H2M	49H52M	45H41M	43H6M	46H26M	48H49M	44H3M	40H25M													
E.T.C	15.01Hrs/29	15.01Hrs/29	06.17Hrs/28	01.12Hrs/28	00.52Hrs/28	21.41Hrs/27	23.06Hrs/27	00.26Hrs/28	03.49Hrs/28	00.13Hrs/28	21.25Hrs/27													
UHI P (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
UHI S (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100)	5	5.1	5.2	5	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2		
REMARK	Common discharged : 25.08.2015/ 19.12 LT Completed discharge : 28.08.2015/ 09.30 LT																							



Handwritten signature
 PEANGS MARITIME

CHAMPION ONE

LOADING / PUMPING RATE LOG

JY No. : 01 B/D/CO/VIII/2015
 CARGO QTY MFO : 16,381.72 KL

PORT : TG PIROR
 DATE : 28 August 2015

TANK NO	Ull	Hrs	03.00 Ull	Hrs	04.00 Ull	Hrs	05.00 Ull	Hrs	06.00 Ull	Hrs	07.00 Ull	Hrs	08.00 Ull	Hrs	09.00 Ull	Hrs	09.30 Ull	Hrs	11.00 Ull	Hrs	12.00 Ull	Hrs
1P	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0
1S	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0
2P	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0
2S	16.79	187.0	16.84	175.3	16.84	175.3	16.84	175.3	16.84	175.3	16.57	177.2	16.57	123.1	16.66	123.1	16.57	157.5				
3P																						
3S																						
4P	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0
4S	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0
5P	16.70	180.8	16.95	127.6	17.14	27.7	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0
5S	16.60	199.1	16.60	199.1	16.54	211.9	16.54	211.9	16.54	211.9	16.51	200.4	16.51	150.2	16.51	172.3	16.51	113.2				
SLOP P																						
SLOP S																						
Total on board		567		502		415		387		359		338		313		295		271		0		0
Load/To (kg)/Disch'd (KL)	567		502		415		387		359		338		313		295		271		0		0	0
RATE(KL)	93		65		87		38		28		22		24		18		25		271		0	0
To go time	6H5M		7H43M		4H46M		13H49M		12H49M		15H21M		13H2M		16H23M		10H50M					
E.T.C	08.05Hrs/28		10.43Hrs/28		08.46Hrs/28		18.49Hrs/28		18.49Hrs/28		22Hrs/28		21.02Hrs/28		01.23Hrs/29		19.50Hrs/28					
MSD/PUMPING	1		1		1		1		1		1		1		1		1		1		1	1
MSD/PUMPING	5		5.1		5.2		5		5.2		5.3		5.1									
Remark	Comm. discharged : 28.08.2015/ 19.12 LT Completed discharge : 28.08.2015/ 09.30 LT																					

Material Safety Data Sheet



1. Identification of the material and supplier

Product name BP 180 Marine Fuel
SDS no. 000003681
Historic SDS no. YSTOJ
Product use Fuel for marine engines.
For specific application advice see appropriate Technical Data Sheet or consult our company representative.
Synonyms BP RMG 180 Marine Fuel
BP RME 180 Fuel Oil
BP Marine Fuel Oil RME 180
BP Marine Fuel Oil F180
Supplier BP Australia Pty Ltd (ABN 53 004 085 616)
717 Bourke Street
Docklands VIC 3008
Australia
Tel: +61 (03) 9268 4111
Fax: +61 (03) 9268 3321
EMERGENCY TELEPHONE NUMBER 1800 638 556
Product code 000003681

2. Hazards identification

Statement of hazardous/dangerous nature HAZARDOUS SUBSTANCE, NON-DANGEROUS GOODS.
Risk phrases R45- May cause cancer.
R66- Repeated exposure may cause skin dryness or cracking.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety phrases S53- Avoid exposure - obtain special instructions before use.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S61- Avoid release to the environment. Refer to special instructions/safety data sheet.

3. Composition/information on ingredients

This material may contain significant quantities of polycyclic aromatic hydrocarbons (PCAs), some of which have been shown by experimental studies to induce skin cancer. This material can contain hydrogen sulphide (H₂S), a very toxic and extremely flammable gas. May contain performance improvement additives.

Ingredient name	CAS no.	%
fuel oil No.6	68553-00-4	100

4. First-aid measures

Eye contact In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Hot material: Contact with liquid: Immediately flush with plenty of tepid water (105-115° F; 41-46° C). DO NOT USE HOT WATER. Get immediate medical attention.
Skin contact Wash with soap and water. Get medical attention if irritation develops. Hot material: Contact with liquid: Immediately flush with plenty of tepid water (105-115° F; 41-46° C). DO NOT USE HOT WATER. Get immediate medical attention.
Inhalation Get medical attention immediately. If inhaled, remove to fresh air.
Ingestion Get medical attention immediately. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.
Advice to doctor Treatment should in general be symptomatic and directed to relieving any effects.

EXPOSURE TO HYDROGEN SULPHIDE:
Casualties suffering ill effects as a result of exposure to hydrogen sulphide should be immediately removed to fresh air and medical assistance obtained without delay.

Note: High Pressure Applications
Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. Injuries may not appear serious at first but within a few hours tissue becomes

Product name BP 180 Marine Fuel	Product code 000003681	Page: 1/6
Version 2	Date of issue 27 October 2011	Format Australia
		Language ENGLISH
	(Australia)	(ENGLISH)

swollen, discoloured and extremely painful with extensive subcutaneous necrosis. Surgical exploration should be undertaken without delay. Thorough and extensive debridement of the wound and underlying tissue is necessary to minimise tissue loss and prevent or limit permanent damage. Note that high pressure may force the product considerable distances along tissue planes.

5. Fire-fighting measures

Extinguishing media

Suitable In case of fire, use water fog, foam, dry chemical or carbon dioxide extinguisher or spray.
Not suitable Do not use water jet. Under no circumstances should water be allowed to contact hot product because of the danger of boil-over.

Hazardous decomposition products Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides
Hydrogen Sulphide (H₂S)

Unusual fire/explosion hazards Avoid spraying directly into storage containers because of the danger of boil-over. Boil-over is the rapid increase in volume caused by the presence of water in hot product and the subsequent overflow from a tank.

Vapours may form explosive mixtures with air. Vapours are heavier than air and may spread along floors. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Special fire-fighting procedures None identified.

Protection of fire-fighters Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spill material. Shut off all ignition sources. No flames, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Large spill Stop leak if without risk. Eliminate all ignition sources. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spill product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Small spill Stop leak if without risk. Eliminate all ignition sources. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

7. Handling and storage

Handling Avoid contact with skin and clothing. Avoid prolonged or repeated contact with skin. Avoid breathing vapours, spray or mists. Avoid contact of spill material and runoff with soil and surface waterways. Wash thoroughly after handling.

Regular periodic self inspection of the skin is recommended, especially those areas subject to contamination. In the event of any localised changes in appearance or texture of the skin being noticed, medical advice should be sought without delay.

Storage Keep container tightly closed. Keep container in a cool, well-ventilated area.

Light hydrocarbon vapours can build up in the headspace of tanks. These can cause flammability/explosion hazards even at temperatures below the normal flash point. (note: flash point must not be regarded as a reliable indicator of the potential flammability of vapour in tank headspaces). Tank headspaces should always be regarded as potentially flammable and care should be taken to avoid static electrical discharge and all ignition sources during filling, ullaging and sampling from storage tanks.

Sulphur compounds in this material may decompose when heated to release hydrogen sulphide gas which may accumulate to potentially lethal concentrations in enclosed air spaces. Vapor concentrations of hydrogen sulphide above 50 ppm, or prolonged exposure at lower concentrations, may saturate human odor perceptions so that the smell of gas may not be apparent. Exposure to concentrations of hydrogen sulphide vapor above 500 ppm may cause rapid death. Do not rely on the sense of smell to detect hydrogen sulphide. Vapours containing hydrogen sulphide may accumulate during storage or transport and may also be vented during filling of tanks. Hydrogen sulphide has a typical "bad egg" smell but at high concentrations the sense of smell is rapidly lost, therefore do not rely on sense of smell for detecting hydrogen sulphide. Use specially designed measuring instruments

Product name BP 180 Marine Fuel	Product code 000003681	Page: 2/6
Version 2	Date of issue 27 October 2011	Format Australia
		Language ENGLISH
	(Australia)	(ENGLISH)

for determining its concentration.
 Combustibility Classification Combustible liquid Class C1 (AS 1940).

8. Exposure controls/personal protection

<p>Ingredient name Fuel oil, residual Hydrogen Sulphide</p> <p>Biological Limit Values</p> <p>Exposure controls</p> <p>Occupational exposure controls</p> <p>Hygiene measures</p> <p>Personal protective equipment</p> <p>Respiratory protection</p> <p>Skin and body</p> <p>Hand protection</p> <p>Eye protection</p>	<p>Occupational exposure limits ACGIH TLV (United States). TWA: 0.2 mg/m³, (Benzene-soluble)</p> <p>Safe Work Australia (Australia). STEL: 21 mg/m³ 15 minute(s), Issued/Revised: 5/1995 STEL: 15 ppm 15 minute(s), Issued/Revised: 5/1995 TWA: 14 mg/m³ 8 hour(s), Issued/Revised: 5/1995 TWA: 10 ppm 8 hour(s), Issued/Revised: 5/1995</p> <p>No biological limit allocated.</p> <p>Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits.</p> <p>Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.</p> <p>Use only with adequate ventilation. Do not breathe vapour or mist. Approved air-supplied breathing apparatus must be worn where there is a risk of inhaling hydrogen sulphide gas. Personal gas monitors may also provide early warning of hydrogen sulphide.</p> <p>Avoid contact with skin. Wear clothing and footwear that cannot be penetrated by chemicals or oil.</p> <p>Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.</p> <p>Work clothing / overalls should be laundered on a regular basis. Laundering of contaminated work clothing should only be done by professional cleaners who have been told about the hazards of the contamination. Always keep contaminated work clothing away from uncontaminated work clothing and uncontaminated personal clothes.</p> <p>Wear gloves that cannot be penetrated by chemicals or oil.</p> <p>The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.</p> <p>Safety glasses with side shields.</p>
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9. Physical and chemical properties

<p>Physical state</p> <p>Colour</p> <p>Odour</p> <p>Flash point</p> <p>Explosive properties</p> <p>Explosion limits</p> <p>Vapour pressure</p> <p>Vapour density</p> <p>Viscosity</p> <p>pH</p> <p>Boiling point / range</p> <p>Melting point / range</p> <p>Pour point</p> <p>Relative density/Specific gravity</p> <p>Density</p> <p>Solubility</p> <p>Remarks</p>	<p>Oily, Viscous liquid.</p> <p>Black.</p> <p>Mild.</p> <p>>61.5 °C (Closed cup) Pensky-Martens.</p> <p>Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.</p> <p>Lower: 0.7% Upper: 5%</p> <p><0.1 kPa (<0.75 mm Hg) at 20°C</p> <p>Not available.</p> <p>Kinematic: 180 mm²/s (180 cSt) at 50°C</p> <p>Not available.</p> <p>>150°C (>302°F)</p> <p>Not available.</p> <p><30 °C</p> <p><1</p> <p>991 kg/m³ (0.991 g/cm³) at 15°C</p> <p>Very slightly soluble in water.</p> <p>May Contain Sulphur</p>
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10 . Stability and reactivity

Stability	The product is stable.
Conditions to avoid	Avoid extreme temperatures, strong oxidizers, fire.
Incompatibility with various substances/hazardous Reactions	Reactive or incompatible with the following materials: oxidising materials.
Hazardous decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides Hydrogen Sulphide (H2S)

11 . Toxicological information

Effects and symptoms

Eyes	No significant health hazards identified.
Skin	Contains material which can cause cancer. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
Inhalation	Vapour, mist or fume may irritate the nose, mouth and respiratory tract. This material can contain hydrogen sulphide (H ₂ S), a very toxic and extremely flammable gas. Contains material which can cause cancer.
Ingestion	No significant health hazards identified.

Chronic toxicity

Other chronic toxicity data	As with all such products containing potentially harmful levels of PCAs, prolonged or repeated skin contact may eventually result in dermatitis or more serious irreversible skin disorders including cancer.
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Vapour, mists or fumes may contain polycyclic aromatic hydrocarbons some of which are known to produce skin cancer.

May cause damage to organs through prolonged or repeated exposure. Liver, blood
SUSPECT CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE CANCER.
Risk of cancer depends on duration and level of exposure.
Classified 2B (Possible for humans.) by IARC. [Fuel oil No.6]

Carcinogenic effects

Mutagenic effects

No known significant effects or critical hazards.

Other information

This material may contain significant quantities of polycyclic aromatic hydrocarbons (PCAs), some of which have been shown by experimental studies to induce skin cancer. May be harmful if absorbed through the skin. Avoid skin contact. As with all such products containing potentially harmful levels of PCAs, prolonged or repeated skin contact may eventually result in dermatitis or more serious irreversible skin disorders including cancer. Regular periodic self inspection of the skin is recommended, especially those areas subject to contamination. In the event of any localised changes in appearance or texture of the skin being noticed, medical advice should be sought without delay.

Hydrogen sulphide (H₂S) gas may accumulate in storage tanks of bulk transport compartments containing this material. Contact with eyes causes painful conjunctivitis, sensitivity to light, tearing and clouding of vision. Inhalation of low concentrations causes a runny nose with a loss of sense of smell, labored breathing and shortness of breath. Direct contact with skin causes pain and redness. Other symptoms of exposure include profuse salivation, nausea, vomiting, diarrhea, giddiness, headache, dizziness, confusion, rapid breathing, rapid heart rate, sweating, weakness, sudden collapse, unconsciousness and death due to respiratory paralysis. Cardiac neurological effects have also been reported. Prolonged breathing (greater than one hour) of concentrations of H₂S around 50 ppm can produce eye and respiratory tract irritation. Levels of 250 to 600 ppm will result in fluid in the lungs, and concentrations around 1,000 ppm will cause unconsciousness and death in a short period of time. Since the sense of smell rapidly becomes insensitive to this toxic, colourless gas, odour cannot be relied upon as an indicator of concentrations of the gas. Always exercise caution when working around closed containers.

12 . Ecological information

Ecotoxicity	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Biodegradability	
Persistence/degradability	The biodegradability of this material has not been determined.
Bioaccumulative potential	This product is not expected to bioaccumulate through food chains in the environment.

13 . Disposal considerations

Disposal considerations / Waste information

The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers.

Product name BP 180 Marine Fuel	Product code 000003681	Page: 4/6	
Version 2	Date of issue 27 October 2011	Format Australia	Language ENGLISH
		(Australia)	(ENGLISH)

Special Precautions for
Landfill or Incineration

No additional special precautions identified.

14. Transport information

International transport regulations

Regulatory information	UN number	Proper shipping name	Class	PG*	Label	Additional information
ADG Classification	Not regulated.	-	-	-	-	Remarks Combustible liquid Class C1 (AS 1940).
IMDG Classification	UN 1202	DIESEL FUEL, Marine pollutant	3	III	 	Emergency schedules (EmS) F-A-S-F
IATA/ICAO Classification	UN 1202	DIESEL FUEL	3	III	 	-

PG* : Packing group

Special precautions for user No known special precautions required. See Section "Handling and storage" for additional information.

15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons

Not regulated.

Control of Scheduled Carcinogenic Substances

Ingredient name

No Listed Substance

Schedule

Other regulations

REACH Status

United States inventory (TSCA 8b)

Australia inventory (AICS)

Canada inventory

China inventory (IECSC)

Japan inventory (ENCS)

Korea inventory (KECI)

Philippines inventory (PICCS)

For the REACH status of this product please consult your company contact, as identified in Section 1.

All components are listed or exempted.

Not determined.

Not determined.

Not determined.

16. Other information

Key to abbreviations

AMP = Acceptable Maximum Peak

ACGIH = American Conference of Governmental Industrial Hygienists, an agency that promulgates exposure standards.

ADG = Australian Code for the Transport of Dangerous Goods by Road and Rail

ADG Code = Australian Code for the Transport of Dangerous Goods by Road and Rail

CAS Number = Chemical Abstracts Service Registry Number

HAZCHEM Code = Emergency action code of numbers and letters which gives information to emergency services. Its use is required by the ADG Code for Dangerous Goods in bulk.

ICAO = International Civil Aviation Organization.

IATA = International Air Transport Association, the organization promulgating rules governing shipment of goods by air.

IMDG = International Maritime Organization Rules, rules governing shipment of goods by water.

IP 346 = A chemical screening assay for dermal toxicity. The European Commission has recommended that Method IP 346 be used as the basis for labelling certain lubricant oil base stocks for carcinogenicity. The EU Commission has stipulated that the classification as a carcinogen need not apply if it can be shown that the substance contains less than 3% DMSO extract as measured by IP 346. (See Note L, European Commission Directive 67/548/EEC as amended and adapted.) DMSO is a solvent.

NOHSC = National Occupational Health & Safety Commission, Australia

TWA = Time weighted average

STEL = Short term exposure limit

UN Number = United Nations Number, a four digit number assigned by the United Nations Committee

Product name BP 180 Marine Fuel

Product code 000003681

Page: 5/6

Version 2 Date of issue 27 October 2011

Format Australia
(Australia)

Language ENGLISH
(ENGLISH)

of Experts on the Transport of Dangerous Goods.

History

Date of issue 27/10/2011.
Date of previous issue 10/06/2011.
Prepared by Product Stewardship

Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from us.

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