

**Annex 2-1. List of HNS Spill Incidents with Quantity over 10 tons by the People's Republic of China (updated in December 2011)**

List of chemical spill incidents with quantity over 10 Tons from 1996

No.	Date	Latitude	Longitude	Location	Name of Vessel	IMO Ship Number	Nationality	Type of vessel	Quantity (Tonnes)	HNS	Cause	Compensation (US\$)	Fate of spilled HNS	Effects of Spilled HNS
1	1997.07.06			yangtze River	Chuanliang204, Chuanliang205	none	China	barge	330	Concentrated Sulphuric Acid	Sinking			
2	1997.10.08			yangtze River	Ganfuzhouyou0005	none	China	oil tanker	149	benzene	Grounding			
3	1997.10.20			yangtze River	Nanxi0016	none	China	barge	220	Carbon Tetrachloride	Grounding		The cargo is packaged, all salvaged	No pollution
4	1998.06.02			yangtze River	Jiangsu871	none	China	tugboat	108	Concentrated Sulphuric Acid	Grounding			
5	2000.06.18			yangtze River	Hengshanji0018	none	China	chemical carrier	49	Organophosphorus Pesticide (methamidophos)	Sinking		The cargo is packaged, all salvaged	No pollution
6	2001.04.17	31°03'N	122°46'E		DAE MYOUNG	9120437	Korea	bulk chemical carrier	639	Styrene	Collision	541	monitoring, containment, remove, cargo transferred	Heavy pollution (radius 20 sea miles)
7	2001.09.04			yangtze River	Chizhouhuo178, Zongyanghua017	none	China	bulk chemical carrier	203	Concentrated Sulphuric Acid	Collision			
8	2001.09.05			yangtze River	Yanduguan9848	none	China	bulk chemical carrier	150	Concentrated Sulphuric Acid	Collision		salvage wreckage	Slight pollution
9	2002.07.11			yangtze River	Ganjinghuo0005	none	China	chemical carrier	240	30% Sodium Hydroxide solution				
10	2002.10.19	30°49'N	122°38'E		ACCORD	8874172	Korea	bulk chemical carrier	225	Methyl Methacrylate (MMA) & Propylene Glycol Methyl Ether Acetate	Grounding		containment, remove, cargo transferred	
11	2003.02.10			yangtze River	Dongfeng6	none	China	chemical carrier	300	Concentrated Sulphuric Acid	Grounding			
12	2004.03.15			yangtze River	Changrun	none	China	chemical carrier	10	Cyclohexanone	Collision		jam, containment, recovery, cargo transferred	Slight pollution
13	2004.04.06	22°00'N	108°30'E		Guiyun1519	none	China	chemical carrier	100	31% Hydrochloric acid	Grounding & Sinking		monitoring, salvage wreckage	
14	2004.09.11	36°43'N	122°36'E		Jinda266	none	China	bulk chemical carrier	2000	32% Hydrochloric acid	Sinking		containment, remove, salvage wreckage	
15	2005.04.08	31°16'N	122°52'E		GG CHEMIST	8403624	Korea	bulk chemical carrier	67	Toluene	Collision		monitoring, containment, remove, cargo transferred	Pollution
16	2005.08.21	31°57'N	120°02'E		Ocean Queen	8419063	Panama	bulk chemical carrier	80	Diethylene Glycol	Hull Crack		cargo transferred to other cabins	Pollution
17	2006.06.27	30°57'N	122°03'E		Zhehuangji701	none	China	bulk chemical carrier	354	Concentrated Sulphuric Acid	Collision		monitoring, dilution by stirring sea water, cargo transferred	Pollution
18	2007.1.29	36°52'18"N	122°27'12"E		HUITONG22		China	Chemical tanker	36.89	Butyl acrylates	Collision and Grounding			
19	2010.03.02	22°8'24"N	113°47'48"E	Guangdong	FRONTIER		Panama	chemical tanker	1755	Methanol	Collision		Monitoring and surveillance	Pollution
20	2011.02.17	29°52'N	122°07'E	Zhejiang	CHI FENG		China	Chemical tanker	121	Liquid alkali	Collision		Emergency response, cargo chemical transferred	Pollution
21	2011.03.27	32°03'N	120°24'E	Jiangsu	SAMHO HERON		Malta	Chemical tanker	13	Palm Oil	Wrong operation		Cleaned up	Pollution

**Annex 2-2. The list of HNS spill incidents with Quantity over 10 tons in Japan**

The list of HNS spill accidents with spillage over 10 tons from 1990 to 2012 in Japan (Spillage from ship only)

No.	Date	Latitude	Longitude	Location	Name of ship	Nationality	Type of Ship	Quantity (Tonnes)	Type of HNS	Cause
1	14/2/1994	34°36'	135°21'	Outside of the Osaka port	Daisyo-maru	Japan	No record	116kl	Ethyl acetate	Collision
2	6/9/1995	35°25'	139°44'	2.4NM from Honmoku contorl signal center	HUSUM	Cyprus	Container vessel	Unknown	Sulfur dioxide	Chemical reaction
3	10/2/1996	34°35'	138°15'	Omaezaki	Dai 21 daiho-maru	Japan	Chemical tanker	400t	Liquid phosphoric acid	Grounding Sinking
4	9/2/1996	32°58'	126°54'	33NM east-southeast form the Cheju, Korea	SUNNY BREEZE	Panama	Tanker	3,794t 226t	Gas oil Solvent	Explosion and Fire Sinking
5	3/7/1996	34°45'	139°12'	8NM from the Higashi izu town	Yusei-maru	Japan	Chemical tanker	Unknown	Butyl acrylate	Collision
6	5/11/1996	35°27'	139°45'	5,100m from the lifthouse of the Daikoku dike, Yokohama	FORMOSA – TWO	Liberia	Chemical tanker	26t	Styrene monomer	Collision
7	26/6/1997	35°30'	139°48'	Tokyo-bay	Dai 2 takasago-maru	Japan	LPG tanker	extremely small amount	Liquid propylene	Sinking
8	9/10/1997	35°27'	139°47'	Keihin-port, tokyo-bay	BOW – PANTER	Norway	Chemical tanker	20kl	Mixed xylene (Orthoxylene, Metaxylene, Paraxylene)	Damage of hull
9	12/12/1997	35°30'	139°46'	Keihin-port, tokyo-bay	LODESTAR – SPIRIT	Panama	Chemical tanker	Unknown	Paraxylene	Collision
10	19/10/1998	35°36'	139°47'	Kimizu city, Pref. ChibaOume cotainer pier, tokyo-bay	UNI VITAL	Panama	Container vessel	Unknown	Unknown	Unconnected electric power supply with Cooling machine
11	27/5/2000	28°08'	122°54'	280NM North-west from Naha City	PRATIBHA YAMUNA	Unknown	Chemical tanker	Unknown	Naphtha	Explosion and Fire
12	30/8/2000	44°58'	140°24'	36 NM from the Rishiri Irand	Dai 8 Katu-maru	Japan	Fishing vessel	Unknown	Ammonia gas	Accident to a cooling machine
13	17/9/2000	42°58'	144°21'	1,300m from the Kushirozaki lighthouse	PAO HSIANG № 1	Taiwan	Fishing vessel	Unknown	Ammonia	Grounding
14	5/10/2002	34°34'	138°38'	102 NM west-southwest from Irozaki lighthouse, Pref.	Eiwa-maru	Japan	Chemical tanker	500t	Xylene	Collision
15	24/12/2003	33°44'	131°48'	10.8 MN from Hoziro light house, Pref. Ymaguchi	SUN VENUS	Panama	Chemical tanker	556kl	Ethanol	Explosion and fire
16	9/7/2005	33°53'	131°10'	Outside of Ube port, Pref. Yamaguchi	Dainisyouturu-maru	Japan	LEG tanker	32t	Liquefied ethylene gas	Collision
17	15/7/2005	33°46'	136°19'	Offing of the Kumano city, Pref. Wakayama	Kyokuyo-maru	Japan	Chemical tanker	300kl	Crude benzene	Collision
18	23/1/2007	34°33'	135°25'	Keisenkita-port, osaka-bay	Sinkawa-maru	Japan	Chemical tanker	Unknown	Phthalic acid	Damage of hull
19	2/4/2008	Unknown		Unknown (Between Kashima port and Daiozaki)	No.2 Eimei-maru	Japan	Chemical tanker	Unknown	Hydrogen peroxide	Trouble of hull
20	15/5/2009	34°29'	133°58'	Outside of Uno port, Okayama Pref.	No.8 Eiifuku-maru	Japan	Chemical tanker	Unknown	Methanol	Collision
21	22/6/2009	35°53'	140°41'	Kashima-port	No.29 Kiku-maru	Japan	Chemical tanker	Unknown	Sodium Hydroxide	Sinking
19	2/4/2008	Unknown		Unknown (Between Kashima port and Daiozaki)	No.2 Eimei-maru	Japan	Chemical tanker	Unknown	Hydrogen peroxide	Trouble of hull
20	15/5/2009	34°29'	133°58'	Outside of Uno port, Okayama Pref.	No.8 Eiifuku-maru	Japan	Chemical tanker	Unknown	Methanol	Collision
21	22/6/2009	35°53'	140°41'	Kashima-port	No.29 Kiku-maru	Japan	Chemical tanker	Unknown	Sodium Hydroxide	Sinking
22	17/6/2010	34°24'	134°15'	Inland Sea,Japan	Keiwa-maru	Japan	Chemical tanker	Unknown	Magnesium Hydroxide	Sinking

The list of HNS spill accidents with spillage over 10 tons from 1990 to 2012 in Japan (Spillage from ship only)

No.	Date	Latitude	Longitude	Location	Name of ship	Nationality	Type of Ship	Quantity (Tonnes)	Type of HNS	Cause
23	9/1/2011	37°42'	138°03'	off Niigata,japan	Seiyoh	Japan	Chemical tanker	Unknown	Vinyl acetate monomr	Sinking

**Annex 2-3. List of HNS Spill Incidents with Quantity over 10 tons by the Republic of Korea (updated in April 2011)**

List of HNS spill Incidents with Quantity over 50 Tons from 1990 to 2000 and over 10 Tons from 2001

No.	Date	Latitude	Longitude	Location	Name of ship	IMO Ship Number	Nationality	Type of ship	Quantity (Tonnes)	Type of HNS	Cause	Compensation (US\$)	Fate of Spilled HNS	Effects of Spilled HNS
1	1992.05.10	34°53'	128°57'		Stainess Princess		Greece	Non-Tanker	1600	MFP/MDO	Aground	None	Evaporated due to strong wind.	
2	1993.10.01	37°00'	127°45'		Frountier Express		Panama	Tanker	8320	Naphtha	Ran aground	None	Evaporated.	
3	1995.12.22	35°24'	129°25'		Danita		Panama	Tanker	4970	Kerosene	Collision	None	Evaporated.	
4	1999.11.09	34°54'20"	129°02'30"		Young Chemi		Belize	Chemical	988	Chloroform	Collision	None		
5	2000.04.11	36°57'36"	126°49'48"		Daelim 501		Korea	Barge for dredge	164.6	MDO	Explosion	None	Most of the spilt oil was contained within the deployed oil boom. However, some of oil escaped from the boom and was spread to the extent of maximum 1,500m length, showing brown color.	immediately diluted into the sea
6	2002.05.13	35°59'15"	125°50'56"	off Gunsan	Daesan Pioneer 2		Korea	Chemical tanker	203.8	Xylene	Collision	-		
7	2004.05.26	34°39'15"	127°57'00"	off Tongyeong	Morning Express		Panama	Tanker	1200	Naphtha	Collision	None		
8	2004.07.08	34°36'00"	128°48'05"		Xinwanda		Mongolia	Cargo vessel	33.9	MGO	Collision	None		
9	2007.12.07	35°27'00"	129°22'06"	off Ulsan	FOSSANGER		Norway	Chemical tanker	955	Methanol	Collision	None	Spontaneous dispersion.	
10	2009.01.08	37°02'00"	126°09'00"	off Taeon	Samho Gloria		Marshall islands	Chemical tanker	8689	Parm oil	Intention	None	Spontaneous dispersion. Removed	
11	2010.03.28	37°27'38"	126°36'59"	off Yeosu	Shinyoung1		Korea	Tanker	59	Nitric acid cleaning water and Waste oil	rupture of hull	None	Spilt oil was collectey with Skimmers, and absorbed with sorbent. Dispersant sprayed. Boom deployed. 5 vessels dispatched	
12	2011-3-16	34-5-0	127-10-0	off Wando	STOLT DISTRIBUTOR		China	Chemical Tanker	76	Benzen	Collision	None	Deployed the punch stopper and transferred remained HNS(Benzen)	

**Annex 2-4. List of HNS Spill Incidents with Quantity over 10 tons by the Russian Federation (updated on April 2012)**

List of HNS spill Incidents with Quantity over 50 Tons from 1990 to 2000 and over 10 Tons from 2001

No.	Date	Latitude	Longitude	Location	Name of ship	IMO Ship Number	Nationality	Type of ship	Quantity (Tonnes)	Type of HNS	Cause	Compensation (US\$)	Fate of Spilled HNS	Effects of Spilled HNS
1	2010				NO				NO					
2	2011				NO				NO					