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PREVENTION OF POLLUTION OF THE SEA ACT
(CHAPTER 243)

PREVENTION OF POLLUTION OF THE SEA
(NOXIOUS LIQUID SUBSTANCES IN BULK)
(AMENDMENT) REGULATIONS 2017

In exercise of the powers conferred by section 34 of the Prevention of Pollution of the Sea Act, the Maritime and Port Authority of Singapore, with the approval of the Minister for Transport, makes the following Regulations:

Citation and commencement

1. These Regulations are the Prevention of Pollution of the Sea (Noxious Liquid Substances in Bulk) (Amendment) Regulations 2017 and come into operation on 1 September 2017.

Deletion and substitution of Appendix 1 of First Schedule

2. Appendix 1 of the First Schedule to the Prevention of Pollution of the Sea (Noxious Liquid Substances in Bulk) Regulations 2006 (G.N. No. S 686/2006) is deleted and the following Appendix substituted therefor:

“APPENDIX 1
GUIDELINES FOR THE CATEGORIZATION OF
NOXIOUS LIQUID SUBSTANCES* ”

Products are assigned to Pollution Categories based on an evaluation of their properties as reflected in the resultant GESAMP Hazard Profile as shown in the table below:

Rule	A1 Bio- accumulation	A2 Bio- degradation	B1 Acute toxicity	B2 Chronic toxicity	D3 Long-term health effects	E2 Effects on marine wildlife and on benthic habitats	Cat
1			≥ 5				X
2	≥ 4		4				
3		NR	4				
4	≥ 4	NR			CMRTNI		
5			4				Y
6			3				
7			2				
8	≥ 4	NR		Not 0			
9				≥ 1			
10						Fp, F or S If not Inorganic	
11					CMRTNI		
12	Any product not meeting the criteria of rules 1 to 11 and 13						Z
13	All products identified as: ≤ 2 in column A1; R in column A2; blank in column D3; not Fp, F or S (if not organic) in column E2; and 0 (zero) in all other columns of the GESAMP Hazard Profile						OS

* Reference is made to MEPC.1/Circ.512 on the Revised Guidelines for the provisional assessment of liquid substances transported in bulk.

Abbreviated legend to the revised GESAMP Hazard Evaluation Procedure

The Revised GESAMP hazard evaluation procedure

Columns A & B — Aquatic Environment			
rating	A Bioaccumulation and Biodegradation		B Aquatic Toxicity
	A1 Bioaccumulation	A2 Biodegradation	B1 Acute Toxicity LC/EC/IC ₅₀ (mg/l)
0	log P _{ow} < 1 or > ca.7	BCF no measurable BCF	B2 Chronic Toxicity NOEC (mg/l) > 1
1	≥ 1 – < 2	≥ 1 – < 10	> 1000
2	≥ 2 – < 3	≥ 10 – < 100	> 100 – ≤ 1000
3	≥ 3 – < 4	≥ 100 – < 500	> 10 – ≤ 100
4	≥ 4 – < 5	≥ 500 – < 4000	> 1 – ≤ 10
5	≥ 5 – < ca.7	> 4000	> 0.1 – ≤ 1
6			> 0.01 – ≤ 0.1
			≤ 0.01

R: readily biodegradable

NR: not readily biodegradable

Columns C & D — Human Health (Toxic effects to mammals)						
rating	C			D		
	Acute mammalian toxicity			Irritation, corrosion & long term health effects		
	C1	C2	C3	D1	D2	D3
0	Oral toxicity LD ₅₀ /ATE (mg/kg) > 2000	Dermal toxicity LD ₅₀ /ATE (mg/kg) > 2000	Inhalation toxicity LD ₅₀ /ATE (mg/l) > 20	Skin irritation & corrosion not irritating	Eye irritation & corrosion not irritating	Long-term health effects C – Carcinogen
1	> 300 – ≤ 2000	> 1000 – ≤ 2000	> 10 – ≤ 20	mildly irritating	mildly irritating	M – Mutagenic
2	> 50 – ≤ 300	> 200 – ≤ 1000	> 2 – ≤ 10	irritating	irritating	R – Reprotoxic
3	> 5 – ≤ 50	> 50 – ≤ 200	> 0.5 – ≤ 2	severely irritating or corrosive	Severely irritating	Ss – Sensitising to skin
4	≤ 5	≤ 50	≤ 0.5	3A Corr. (≤ 4 hr) 3B Corr. (≤ 1 hr) 3C Corr. (≤ 3 min)		Sr – Sensitising to respiratory system A – Aspiration hazard T – Target Organ Toxicity N – Neurotoxic I – Immunotoxic

Column E — Interference with other uses of the sea			
E1 Tainting	E2 Physical effects on wildlife & benthic habitats	E3	
		Numerical Rating	Interference with Coastal Amenities
NT: not tainting (tested) T: tainting test positive	F _p : Persistent Floater F: Floater S: Sinking Substances	0	no interference <i>no warning</i>
		1	slightly objectionable <i>warning, no closure of amenity</i>
		2	moderately objectionable <i>possible closure of amenity</i>
		3	highly objectionable <i>closure of amenity</i>

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[G.N. Nos. S 470/2013; S 868/2014; S 798/2015; S 667/2016]

Made on 28 August 2017.

NIAM CHIANG MENG
Chairman,
Maritime and Port Authority of
Singapore.

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