

# **EU Member State Places of Refuge Table Top Exercise**

## **SERIAL 2: Assessing MAR-ICE information**

**Walter Nordhausen, Ph.D.**



# Information needs in a HNS incident:

## First stage:

- Concise information on the substances involved is needed;
- Information on the hazards, behaviour, physical and chemical properties of the substance;
- Evaluate the risks for the crew on board, responders and general public.

## Second stage:

- Ship integrity information.

## Third stage:

- Information for salvage operations.



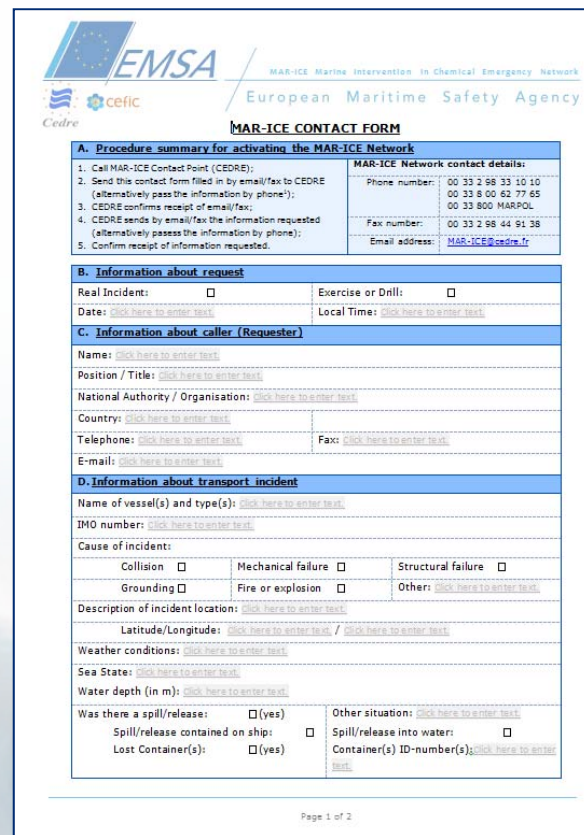
MCA, UK

## EMSA's information tools in a HNS incident

EMSA's mandate: to provide to Member States and the Commission with technical and scientific assistance in the field of marine pollution.

➔ MAR-ICE Network

➔ MAR-CIS (datasheets)



The screenshot displays the 'MAR-ICE CONTACT FORM' from the European Maritime Safety Agency (EMSA). The form is titled 'MAR-ICE CONTACT FORM' and is divided into several sections: A. Procedure summary for activating the MAR-ICE Network, B. Information about request, C. Information about caller (Requester), and D. Information about transport incident. Section A lists five steps for activating the network. Section B includes checkboxes for 'Real Incident' and 'Exercise or Drill', and fields for 'Date' and 'Local Time'. Section C contains fields for 'Name', 'Position / Title', 'National Authority / Organisation', 'Country', 'Telephone', 'Fax', and 'E-mail'. Section D includes fields for 'Name of vessel(s) and type(s)', 'IMO number', 'Cause of incident' (with checkboxes for Collision, Mechanical failure, Structural failure, Grounding, Fire or explosion, and Other), 'Description of incident location', 'Latitude/Longitude', 'Weather conditions', 'Sea State', 'Water depth (in m)', and 'Was there a spill/release?' (with checkboxes for 'Spill/release contained on ship' and 'Lost Container(s)'). There is also a section for 'Other situation' with a checkbox for 'Spill/release into water' and a field for 'Container(s) ID-number(s)'. The form is labeled 'Page 1 of 2' at the bottom.

**MAR-ICE CONTACT FORM**

**A. Procedure summary for activating the MAR-ICE Network**

1. Call MAR-ICE Contact Point (CEDRE);
2. Send this contact form filled in by email/fax to CEDRE (alternatively pass the information by phone);
3. CEDRE confirms receipt of email/fax;
4. CEDRE sends by email/fax the information requested (alternatively pass the information by phone);
5. Confirm receipt of information requested.

**MAR-ICE Network contact details:**

Phone number:	00 33 2 98 33 10 10 00 33 8 00 62 77 65 00 33 800 MARPOL
Fax number:	00 33 2 98 44 91 38
Email address:	MAR-ICE@cedre.fr

**B. Information about request**

Real Incident: ☐ Exercise or Drill: ☐

Date: [Click here to enter text](#) Local Time: [Click here to enter text](#)

**C. Information about caller (Requester)**

Name: [Click here to enter text](#)

Position / Title: [Click here to enter text](#)

National Authority / Organisation: [Click here to enter text](#)

Country: [Click here to enter text](#)

Telephone: [Click here to enter text](#) Fax: [Click here to enter text](#)

E-mail: [Click here to enter text](#)

**D. Information about transport incident**

Name of vessel(s) and type(s): [Click here to enter text](#)

IMO number: [Click here to enter text](#)

Cause of incident:

Collision <input type="checkbox"/>	Mechanical failure <input type="checkbox"/>	Structural failure <input type="checkbox"/>
Grounding <input type="checkbox"/>	Fire or explosion <input type="checkbox"/>	Other: <a href="#">Click here to enter text</a>

Description of incident location: [Click here to enter text](#)

Latitude/Longitude: [Click here to enter text](#) / [Click here to enter text](#)

Weather conditions: [Click here to enter text](#)

Sea State: [Click here to enter text](#)

Water depth (in m): [Click here to enter text](#)

Was there a spill/release: ☐ (yes) ☐ (no)

Spill/release contained on ship: ☐ Spill/release into water: ☐

Lost Container(s): ☐ (yes) ☐ (no) Container(s) ID-number(s): [Click here to enter text](#)

Page 1 of 2

## MAR-ICE Network: Scope



- **MAR-ICE Network** stands for Marine ICE Network (ICE: Intervention in Chemical Emergencies)
- **MAR-ICE** was established by EMSA to provide an **EU wide Information Service for marine incidents involving chemicals** (3 party MoU)
- MAR-ICE builds on ICE, which is a service provided by the European chemical industry for land-based emergencies, but not all EU Member States have access

## MAR-ICE Service

**Provides remote operational assistance to National Authorities during ship sourced chemical spills**

- Assistance provided 24/7 upon request to all EU/EFTA States, through a single access point;
- Remote information & expert advice;
- Product-specific / incident-specific information;
- Fate & trajectory modelling;
- Risk assessment;
- Advise on response methods & options;
- Via contact with knowledgeable chemical companies;
- Products covered are those identifiable by UN number.

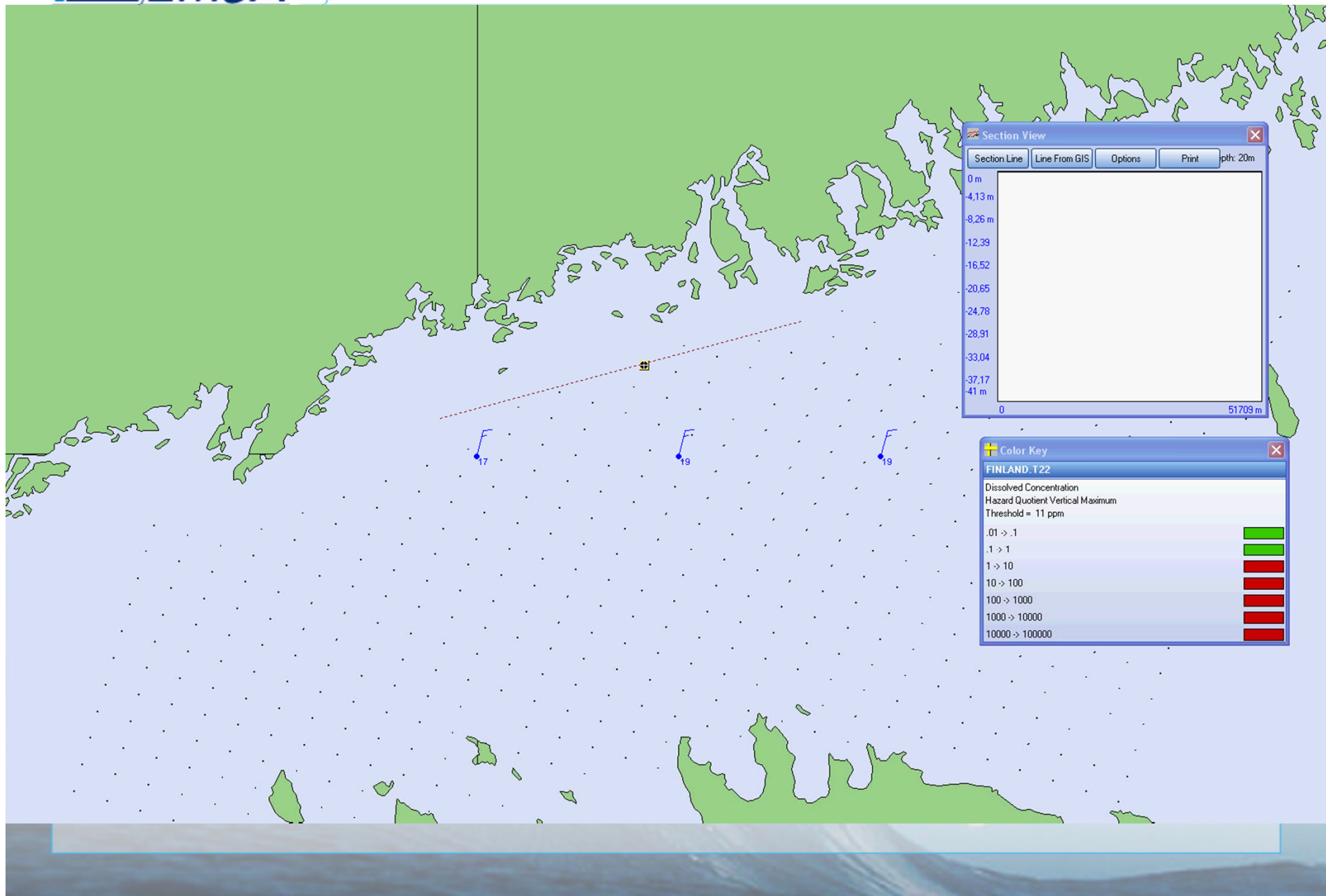




# *BG Dublin* incident, Ireland January 2010









# *MSC Flaminia* incident Belgium July 2012



Centre de Documentation, de Recherche  
et d'Expérimentations sur les pollutions accidentelles des eaux

**Mar-ICE Protocol activation**  
**Container ship - *MSC Flaminia***

**Dangerous containers risk assessment - Report 2**



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August 3<sup>rd</sup> 20

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## Mar-ICE Protocol activation

EXERCISE – EXERCISE – EXERCISE

Container ship – *OCEAN TRAVELLER*

EXERCISE – EXERCISE – EXERCISE

Dangerous containers risk assessment  
– Report No1–



R.XX.XX / XXXX



22 November 2013

# *Ocean Traveller* exercise Netherlands, November 2013



**Unaffected areas fore part**

Bay	Slot	Container Id	Size	Weight (tonne)	Loaded	UN No	Cargo manifest	PROPER SHIPPING NAME	Pak Group	Class	Behaviour	Danger for human beings	Danger for environment	Priority
10	100184	TTNU5538300	40	17.80	Full	1139	(1) ALUMINIUM PLATES, SHEETS AND STRIP, OF A THICKNESS (2) HAZ PAINT	COATING SOLUTION (includes surface treatments or coatings used for industrial purposes	2	3	Generic			MINOR
10	100282	MEDU8941783	40	15.30	Full	3166	(1) PARTS AND ACCESSORIES OF THE MOTOR VEHICLES OF HEA (40 PKGS)	ENGINE, INTERNAL COMBUSTION or VEHICLE, FLAMMABLE GAS POWERED or VEHICLE, FLAMMABLE LIQU		9				MINOR

**Heat and smoke affected areas**

Bay	Slot	Container Id	Size	Weight (tonne)	Loaded	UN No	Cargo manifest	PROPER SHIPPING NAME	Pak Group	Class	Behaviour	Danger for human beings	Danger for environment	Priority
17	170182	CHMU0003513	20	21.70	Full	3394	(1) HAZ CHEMICALS	ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER- REACTIVE	1	42	Liquid Reacts violently with moisture, water and acids, evolving flammable gas	Highly flammable Liable to ignite spontaneously in air, evolve irritating and slightly toxic fumes		VERY SERIOUS
17	170382	MSCU1988334	20	18.50	Full	3267	(1) ORGANIC SURFACE-ACTIVE AGENTS (OTHER THAN SOAP); S (16 PKGS)	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.	2	8	Organic liquid Basic React violently with acid	Causes burns to skin, eyes and mucous membranes		SERIOUS
17	170384	CAXU6181506	20	18.30	Full	3267	(1) ORGANIC SURFACE-ACTIVE AGENTS (OTHER THAN SOAP); S (16 PKGS)	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.	2	8	Organic liquid Reacts violently with acid	Causes burns to skin, eyes and mucous membranes		SERIOUS

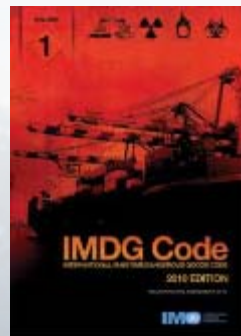


## Content of SDS/MSDS

MSDS/SDS are available sources of information that can be used a first stage of information:

- Developed by the industry;
- 16 Sections of standard information;
- Focused on occupational health and safety, transport safety and environmental protection.

However specific **maritime related information is missing.**



# MAR-CIS (MARine Chemical Information Sheets)

## Main features:

- Should be readily available for response planners and first responders;
- Provide relevant information for Maritime Pollution Response on board of ships;
- Concise and focused;
- Easy understandable by first responders that may not be chemical experts.

Page 1 - Identification  
MAR-CIS MARine Chemical Information Sheets  
**Chloroform**

Identification		Reference numbers
Name	Chloroform	UN number 1888
IUPAC name	trichloromethane	OS number 67-66-3
Proper shipping name	CHLOROFORM	INECS 200-663-8
Product name	Chloroform	Index number 602-006-00-4
Synonyms (more on page 11)	Chloroethid Chloroethid Chloroform DAB 8 Chloroform, stabilisiert mit Alkoholen oder Olefinen Chloroform, unsterilisiert	

References: 1, 10, 42, 44

Substance Properties	
Colourless volatile liquid with characteristic odour. Toxic substance. Dissolves in water to form a corrosive solution of hypochlorous acid which decomposes on standing to chlorine, oxygen, and chloric acid. Non-combustible, extremely dangerous fire effluent.	
Class	Toxic substance
Main uses	Feedstock/intermediate, solvent (minor use).
Appearance	Colourless liquid
Odour	Characteristic
Behaviour (EBCs)	SD - sinker / dissolver

References: 1, 10, 229

Fire Codes	
Legend	no risk severe risk
Health	Blue (Left) 0 to 4
Flammability	Red (Top) 0 to 4
Reactivity	Yellow (Right) 0 to 4
Special	White (Bottom) OK means "oxidizer"
Hazards	W means "use no water"

References: 10

**Warning: Extremely toxic smoke and fire effluent.**

References: 2, 10

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Version: 10.10.2012

## MAR-CIS (MARine Chemical Information Sheets)



Includes explanatory information on Maritime transportation codes providing information on existing safeguards on board.

- IBC code**

Liquid substances transported in bulk

- IMDG code**

Substances transported in packaged form

Maritime transport codes					
<b>IMDG</b>			<b>IBC</b>		
UN number		1279	Marine pollution category	Y	Category Y-Substances under MARPOL Annex II
Hazard class	3	Flammable liquids	 X Y Z		
Subsidiary risks	-				
Packing group	II	Moderate hazard	Ship type	2	Chemical tanker for products with appreciably severe environmental and safety hazards (significant preventive measures)
Emergency schedule EmS	F-E	Non-water-reactive flammable liquids	Tank type	2G	Integral gravity tank
	S-D	Flammable liquids			
Placard / label			Tank vents	Cont.	Controlled venting
			Gauging	R	Restricted gauging
			Tank environmental control	No	No special requirements
			Vapour detection	F-T	Flammable toxic vapours
			Fire protection	A	Alcohol-resistant foam or multi-purpose foam
				B	Regular foam; (not of an alcohol-resistant type, including fluoro-protein and aqueous-film-forming foam)
Stowage and segregation	Cat.B	Cargo or passenger ships with < 25 passengers or 1 passenger/3 m length - stowage on or under deck; other passenger ships with more passengers - stowage on deck only	Emergency escape	No	No special requirements
Marine pollutant		No			

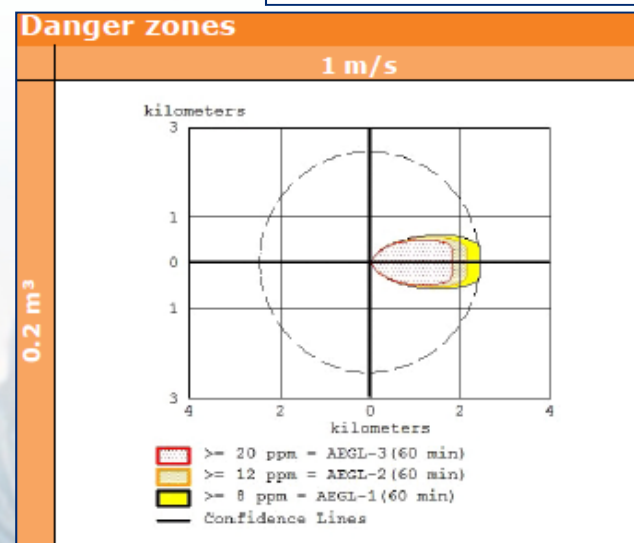
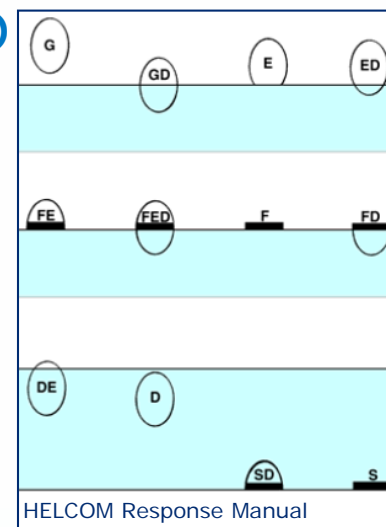
## MAR-CIS (MARine Chemical Information Sheets)

Graphic representation of the GESAMP hazard profile used for classifying HNS that may enter the marine environment through operational discharge, accidental spillage or loss of overboard containers from ships.

GESAMP profile		1	2	3	4	5	6
Bioaccumulation & biodegradation	A1 Bioaccumulation	1					
	A2 Biodegradation	NR: Not readily biodegradable					
Aquatic toxicity	B1 Acute aquatic toxicity	2					
	B2 Chronic aquatic toxicity	1					
Acute mammalian toxicity	C1 Mammalian acute oral toxicity	1					
	C2 Mammalian acute dermal toxicity	0					
	C3 Mammalian acute inhalation toxicity	2					
Irritation, corrosion and long term health effects	D1 Skin irritation and corrosion	2: Irritating					
	D2 Eye irritation and corrosion	2: Irritating					
	D3 Long-term health effects						
Interference with other uses of the sea	E1 Tainting						
	E2 Physical effects on wildlife & benthic habitats	S: Sinking substances D: Dissolves					
	E3 Interference with coastal amenities	2					
Legend		<div></div> maximum value <div></div> maximum value reached ( ) indicative or provisional classification					

## MAR-CIS (MARine Chemical Information Sheets)

- Emergency measures on-board of ships.
  - In case of leakage in open area;
  - In confined spaces;
  - To water.
- Scenarios built-up;
- How substance will behave in water; e.g. dissolve, evaporate, sink...
- PPE (Personal protective equipment)
- Monitoring/detection







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