

Date : 30/04/2015

Version : 2



# SAFETY DATA SHEET

Q, CM, DEAE, S Ceramic HyperD® F chromatography sorbents

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Product name** : Q, CM, DEAE, S Ceramic HyperD F chromatography sorbents  
**Part number** : 20066-xxx, 20050-xxx, 20067-xxx, 20062-xxx  
**Product description** : Ion Exchange chromatography sorbents in carrier solution.  
**Product type** : Mixture. Suspended solid in carrier solution.  
**Other means of identification** : Chromatographic (sorbent) solid suspended in a carrier solution (20 % v/v ethanol and 1.2 mM EDTA in 1M sodium chloride aqueous solution).

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Purification of biomolecules by ion exchange chromatography.

### 1.3 Details of the supplier of the safety data sheet

**Supplier** : Pall BioSeptra, Division of Pall France  
48 Avenue des Genottes  
F-95800 Cergy St Christophe  
+33 (0)1 34 20 78 00  
www.pall.com

**e-mail address of person responsible for this SDS** : reach\_coordinator@pall.com

### 1.4 Emergency telephone number

#### National advisory body/Poison Centre

**Telephone number** : CHEMTREC, U.S. : 1-800-424-9300  
International: +1-703-527-3887

**Hours of operation** : 24 hours/day, 7 days/week

**Country of Origin:** : France

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Chromatographic (sorbent) solid suspended in a carrier solution (20 % v/v ethanol and 1.2 mM EDTA in 1M sodium chloride aqueous solution).

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 3, H226

Eye Irrit. 2, H319

#### Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

**Classification** : R10

**Physical/chemical hazards** : Flammable.

See Section 16 for the full text of the R phrases or H statements declared above.



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### SECTION 2: Hazards identification

See Section 11 for more detailed information on health effects and symptoms.

#### 2.2 Label elements

##### Hazard pictograms

:



##### Signal word

: Warning

##### Hazard statements

: H226 - Flammable liquid and vapour.  
H319 - Causes serious eye irritation.

##### General

: Not applicable.

##### Prevention

: P280 - Wear protective gloves: > 8 hours (breakthrough time): Natural rubber (latex). Wear eye or face protection: Recommended: Splash goggles.  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.

##### Response

: P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

##### Storage

: P235 - Keep cool.

##### Disposal

: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

##### Risk phrases

: R10- Flammable.

##### Safety phrases

: Not applicable.

##### Supplemental label elements

: Not applicable.

##### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

: Not applicable.

##### Special packaging requirements

##### Containers to be fitted with child-resistant fastenings

: Not applicable.

##### Tactile warning of danger

: Not applicable.

#### 2.3 Other hazards

##### Other hazards which do not result in classification

: None known.



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## SECTION 3: Composition/information on ingredients

**3.2 Mixtures** : Chromatographic (sorbent) solid suspended in a carrier solution (20 % v/v ethanol and 1.2 mM EDTA in 1M sodium chloride aqueous solution).

Composition of material as supplied:

Container Size	25ml	100ml	1L	5L	10L	20L
% Sorbent	77	87	73	87	87	87
% Additional Liquid Carrier	23	13	27	13	13	13

Product/ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
Carrier solution: Ethyl Alcohol	EC: 200-578-6 CAS: 64-17-5 Index: 603-002-00-5	16	F; R11 Xi; R36	Flam. Liq. 2, H225 Eye Irrit. 2, H319	[1] [2]
1.2 mM EDTA in 1M sodium chloride aqueous solution	EC: 205-358-3 CAS: 6381-92-6	84	Not classified.	Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Chronic 3, H412 Not classified.	[1]
(Sodium chloride)	EC: 231-598-3 CAS: 7647-14-5	-	Not classified.	Not classified.	-
Chromatography sorbent: Ceramic solid		100			

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

### Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

See Section 16 for the full text of the R-phrases declared above.

See Section 16 for the full text of the H statements declared above.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if adverse health effects persist or are severe.
- Skin contact** : Flush contaminated skin with plenty of water. Get medical attention if symptoms occur.
- Ingestion** : Unlikely route of exposure. Wash out mouth with water. Get medical attention if adverse health effects persist or are severe.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

### 4.2 Most important symptoms and effects, both acute and delayed



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### SECTION 4: First aid measures

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
  - pain or irritation
  - watering
  - redness
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

#### 4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

#### 5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : No specific fire or explosion hazard.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
  - carbon dioxide
  - carbon monoxide

#### 5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.



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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : 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 spilled material. Shut off all ignition sources. No flames, smoking or flames in hazard area. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

- 6.2 Environmental precautions** : Avoid dispersal of spilled 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).

#### 6.3 Methods and material for containment and cleaning up

- Small spill** : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

### SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

#### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

#### 7.2 Conditions for safe storage, including any incompatibilities



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### SECTION 7: Handling and storage

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Store between 2°C (36°F) and 30°C (86°F).

#### Seveso II Directive - Reporting thresholds (in tonnes)

##### Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c: Flammable liquids 2 and 3 not falling under P5a or P5b C6: Flammable (R10)	5000 5000	50000 50000

#### 7.3 Specific end use(s)

**Recommendations** : Not available.

**Industrial sector specific solutions** : Not available.

### SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker or exposure or environmental releases.

#### 8.1 Control parameters

##### Occupational exposure limits

Product/ingredient name	Exposure limit values
Ethyl Alcohol	<b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b> TWA: 1920 mg/m <sup>3</sup> 8 hours. TWA: 1000 ppm 8 hours.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

##### DNELs/DMELs

No DNELs/DMELs available.

##### PNECs

No PNECs available

#### 8.2 Exposure controls



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### SECTION 8: Exposure controls/personal protection

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Individual protection measures**
- Hygiene measures** : 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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with the approved standard should be worn when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts when handling this product – or as required by the working environment. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### SECTION 9: Physical and chemical properties

Note: The properties listed here are based on the carrier solution.

#### 9.1 Information on basic physical and chemical properties

##### Appearance

- Physical state** : Suspended solid in carrier solution.
- Colour** : Colourless to white.
- Odour** : Ethanol.
- Odour threshold** : Not available.
- pH** : 6 to 8 [Conc. (% w/w): 1%]



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### SECTION 9: Physical and chemical properties

<b>Melting point/freezing point</b>	: Not available.
<b>Initial boiling point and boiling range</b>	: Not available.
<b>Flash point</b>	: Closed cup: 36°C [Pensky-Martens.]
<b>Evaporation rate</b>	: >1 (Butyl acetate = 1)
<b>Flammability (solid, gas)</b>	: Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge. Slightly flammable in the presence of the following materials or conditions: heat.
<b>Upper/lower flammability or explosive limits</b>	: Not available.
<b>Vapour pressure</b>	: 1.3 kPa [room temperature]
<b>Vapour density</b>	: 1 [Air = 1]
<b>Relative density</b>	: 1
<b>Solubility(ies)</b>	: Not available.
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Not available.
<b>Explosive properties</b>	: Not available.
<b>Oxidising properties</b>	: Not available.

#### 9.2 Other information

No additional information.

### SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: The product is chemically stable if stored and used under recommended conditions.
<b>10.3 Possibility of hazardous reactions</b>	: Under normal, recommended conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: Avoid all possible sources of ignition. Keep away from heat, sparks, flame and non-compatible materials.
<b>10.5 Incompatible materials</b>	: Reactive or incompatible with the following materials: oxidising materials, acids and alkalis.
<b>10.6 Hazardous decomposition products</b>	: Under normal, recommended conditions of storage and use, hazardous decomposition products should not be produced.





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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Ethyl Alcohol	LC50 Inhalation Vapour LD50 Oral	Rat Rat	124700 mg/m <sup>3</sup> 7 g/kg	4 hours -

##### Acute toxicity estimates

Not available.

##### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Ethyl Alcohol	Eyes - Moderate irritant	Rabbit	-	100 µL	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Moderate irritant	Rabbit	-	0.066666667 minutes 100 mg	-
	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	400 mg	-

##### Sensitisation

There is no data available.

##### Carcinogenicity

There is no data available.

##### Specific target organ toxicity (single exposure)

There is no data available.

##### Specific target organ toxicity (repeated exposure)

There is no data available.

##### Aspiration hazard

There is no data available.

**Information on the likely routes of exposure** : Routes of entry anticipated: Dermal, Inhalation.

##### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

##### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

##### Delayed and immediate effects and also chronic effects from short and long term exposure



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## SAFETY DATA SHEET

### SECTION 11: Toxicological information

#### Short term exposure

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

#### Long term exposure

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

#### Potential chronic health effects

**General** : No known significant effects or critical hazards.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

**Other information** : Not available.

### SECTION 12: Ecological information

#### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Ethyl Alcohol	Acute EC50 17.921 mg/L Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 2000 µg/L Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 25500 µg/L Marine water	Crustaceans - Artemia franciscana - Larvae	48 hours
	Acute LC50 42000 µg/L Fresh water	Fish - Oncorhynchus mykiss	4 days
	Chronic NOEC 4.995 mg/L Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.375 ul/L Fresh water	Fish - Gambusia holbrooki - Larvae	12 weeks

#### 12.2 Persistence and degradability

There is no data available.

#### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Ethyl Alcohol	-0.32	-	low

#### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

#### 12.5 Results of PBT and vPvB assessment

**PBT** : Not applicable.

**vPvB** : Not applicable.

**12.6 Other adverse effects** : No known significant effects or critical hazards.



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### SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

#### 13.1 Waste treatment methods

##### Product

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and bi-products should comply with the requirements of local, regional, national and international environmental protection legislation. Waste should be enclosed in a suitable labelled container and disposed of via a licenced waste disposal contractor.

**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

##### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. If contaminated, dispose of in line with local, regional, national and international legislation. When deciding on disposal method, take into account the nature of any contaminants present.

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

### SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
<b>14.1 UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>14.2 UN proper shipping name</b>	-	-	-	-
<b>14.3 Transport hazard class(es)</b>	-	-	-	-
<b>14.4 Packing group</b>	-	-	-	-
<b>14.5 Environmental hazards</b>	No.	No.	No.	No.
<b>Additional information</b>	Not restricted, Special Provision 144	Not restricted, Special Provision 144	Not restricted, Special Provision 144	Not restricted, Special Provision A58

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.



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### SECTION 14: Transport information

**14.7 Transport in bulk** : Not available.  
according to Annex II of  
MARPOL 73/78 and the IBC  
Code

### SECTION 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

**Annex XVII - Restrictions** : Not applicable.  
on the manufacture,  
placing on the market  
and use of certain  
dangerous substances,  
mixtures and articles

Other EU regulations

Europe inventory : All components are listed or exempted.

Seveso II Directive

This product is controlled under the Seveso II Directive.

Danger criteria

**Category**

P5c: Flammable liquids 2 and 3 not falling under P5a or P5b  
C6: Flammable (R10)

**15.2 Chemical Safety Assessment** : This product contains substances for which Chemical Safety Assessments are still required.

### SECTION 16: Other information

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
EUH statement = CLP-specific Hazard statement  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number  
vPvB = Very Persistent and Very Bioaccumulative

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 3, H226

Eye Irrit. 2, H319

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]



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## SECTION 16: Other information

Classification	Justification
Flam. Liq. 3, H226 Eye Irrit. 2, H319	Expert judgment Calculation method

<b>Full text of abbreviated H statements</b>	: H225 H226 H319	Highly flammable liquid and vapour. Flammable liquid and vapour. Causes serious eye irritation.
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<b>Full text of classifications [CLP/GHS]</b>	: Eye Irrit. 2, H319 Flam. Liq. 2, H225 Flam. Liq. 3, H226	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 FLAMMABLE LIQUIDS - Category 2 FLAMMABLE LIQUIDS - Category 3
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<b>Full text of abbreviated R phrases</b>	: R11- Highly flammable. R10- Flammable. R36- Irritating to eyes.	
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<b>Full text of classifications [DSD/DPD]</b>	: F - Highly flammable Xi - Irritant	
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### History

- Date of issue (dd/mm/yyyy)** : 30/04/2015  
**Date of previous issue** : 15/03/2014  
**Version** : 2  
**Revised Section(s)** : 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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