

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Date of issue: 16-3-2015 Revision date: 7-11-2016 Supersedes: 28-1-2016 Version: 2.0

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

## **Product identifier**

Product form : Mixtures

Product name : PM Xeramic Hydraulic Valve Lifter

Product code : 10123 : Lubricant Type of product

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

#### 1.2.1. Relevant identified uses

: Industrial Industrial/Professional use spec

For professional use only

Use of the substance/mixture : This oil should not be used for any other purpose than the intended use without expert advice

Function or use category : Lubricants and additives

#### Uses advised against 1.2.2.

No additional information available

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

Petromark Automotive Chemicals BV Rooswijkweg 316 1951 ME Velsen-Noord - Netherlands T +31 251 211397 - F +31 251 212390 info@petromark.eu

#### 1.4. **Emergency telephone number**

**Emergency number** : +31 251 211397

Country	Organisation/Company	Address	Emergency number	Comment
Iceland	Eitrunarmiðstöð Landspítali	Fossvogi 108 Reykjavik	+354 543 22 22	
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 '+353 1 809 2166 (public, 8am - 10pm, 7/7)	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	

## **SECTION 2: Hazards identification**

## Classification of the substance or mixture

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

Serious eye damage/eye irritation, H319

Category 2

Sensitisation -H317 - Skin, Category 1 Hazardous to the aquatic environment H412

- Chronic Hazard, Category 3

Full text of H statements: see section 16

## Adverse physicochemical, human health and environmental effects

May cause an allergic skin reaction. Causes serious eye irritation.

### **Label elements**

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

Hazard pictograms (CLP)



GHS07

Signal word (CLP) Warning

Hazardous ingredients Benzenesulfonic acid, methyl-, mono-C20-24-branched alkyl derivs., calcium salts; Benzenesulfonic acid, methyl-, mono-C20-26-branched alkyl derivs., calcium salts

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Hazard statements (CLP) : H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

Precautionary statements (CLP) : P261 - Avoid breathing dust, fume, gas, mist, spray, vapours

P264 - Wash hands, forearms and face thoroughly after handling

P272 - Contaminated work clothing should not be allowed out of the workplace

P280 - Wear eye protection, face protection, protective gloves P302+P352 - IF ON SKIN: Wash with plenty of soap and water

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing

#### 2.3. Other hazards

No additional information available

## **SECTION 3: Composition/information on ingredients**

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Amines, polyethylenepoly-, reaction products with 1,3- dioxolan-2-one and succinic anhydride monopolyisobutenyl derivs.	(CAS No) 147880-09-9 (EC no) 604-611-9	5 - 10	Aquatic Chronic 4, H413
Benzenesulfonic acid, methyl-, mono-C20-26-branched alkyl derivs., calcium salts	(CAS No) 755503-69-7	1 - 5	Aquatic Chronic 4, H413
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts	(CAS No) 68784-31-6 (EC no) 272-238-5 (REACH-no) 01-2119657973-23	1 - 5	Eye Dam. 1, H318 Aquatic Chronic 2, H411
Benzenesulfonic acid, methyl-, mono-C20-26-branched alkyl derivs., calcium salts	(CAS No) 755503-69-7	1 - 5	Skin Sens. 1B, H317 Aquatic Chronic 4, H413
Benzenesulfonic acid, methyl-, mono-C20-24-branched alkyl derivs., calcium salts	(CAS No) 722503-68-6	0,1 - 5	Skin Sens. 1, H317 Aquatic Chronic 4, H413

Full text of H-statements: see section 16

## **SECTION 4: First aid measures**

4.1.	Description of first aid	I moseuroe
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First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical

advice (show the label where possible).

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Assure fresh air breathing.

Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed

by warm water rinse. Wash contaminated clothing before reuse. Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : If eye irritation persists: Get medical advice/attention. Get medical advice/attention. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center or a doctor if you feel unwell.

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

Symptoms/injuries : After adequate first aid, no further treatment is required unless symptoms reappear.

Symptoms/injuries after inhalation : After adequate first aid, no further treatment is required unless symptoms reappear. May cause

an allergic skin reaction.

Symptoms/injuries after skin contact : After adequate first aid, no further treatment is required unless symptoms reappear. May cause

an allergic skin reaction.

Symptoms/injuries after eye contact : After adequate first aid, no further treatment is required unless symptoms reappear. Causes

serious eye irritation. Eye irritation.

Symptoms/injuries after ingestion : After adequate first aid, no further treatment is required unless symptoms reappear.

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

Treat symptomatically.

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## SECTION 5: Firefighting measures

**Extinguishing media** 

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Do not use a water jet since it may cause the fire to spread. Do not use a heavy water stream.

Special hazards arising from the substance or mixture

Fire hazard : On burning: release of carbon monoxide - carbon dioxide.

Hazardous decomposition products in case of

: Toxic fumes may be released.

5.3. **Advice for firefighters** 

Precautionary measures fire : Evacuate area. Fight fire remotely due to the risk of explosion. Stop leak if safe to do so.

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire fighting water from entering the environment. Protection during firefighting

: Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing

apparatus. Complete protective clothing.

#### **SECTION 6: Accidental release measures**

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

: Prevent entry to sewers and public waters. General measures

For non-emergency personnel

Protective equipment Eliminate all ignition sources if safe to do so. Due to the extremely slippery nature of this

material, more care than usual must be exercised in material handling practices to keep off all walking surfaces. Wear suitable protective clothing and eye/face protection.

Emergency procedures Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin and eyes.

Avoid breathing dust, fume, gas, mist, spray, vapours.

For emergency responders 6.1.2.

: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with Protective equipment

proper protection. For further information refer to section 8: "Exposure controls/personal

protection".

Emergency procedures : Ventilate area.

#### **Environmental precautions**

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### Methods and material for containment and cleaning up

For containment Contain any spills with dikes or absorbents to prevent migration and entry into sewers or

Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or Methods for cleaning up

diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

Other information Provide for a tub to collect spills. Dispose of materials or solid residues at an authorized site.

#### Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

### **SECTION 7: Handling and storage**

## Precautions for safe handling

Additional hazards when processed : No open flames, no sparks, and no smoking.

: Ensure good ventilation of the work station. Wash hands and other exposed areas with mild Precautions for safe handling soap and water before eating, drinking or smoking and when leaving work. Provide good

ventilation in process area to prevent formation of vapour. Avoid contact with skin and eyes. Avoid breathing dust, fume, gas, mist, spray, vapours. Wear personal protective equipment.

Hygiene measures Wash hands, forearms and face thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

## Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat sources,

Direct sunlight. Keep container closed when not in use. Store in a well-ventilated place. Keep

Incompatible products : Strong bases. Strong acids. Incompatible materials : Sources of ignition. Direct sunlight.

Storage temperature : <= 40 °C

Storage area : Store away from heat. Store in a well-ventilated place.

: Keep only in original container. Store in a closed container. Special rules on packaging

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## 7.3. Specific end use(s)

No additional information available.

## **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

#### Appropriate engineering controls:

Use adequate ventilation to keep oil mist below applicable standard. Use splash goggles when eye contact due to splashing is possible. Ocular shower with suitable liquid.

#### Personal protective equipment:

Gloves. Safety glasses. Protective clothing. Avoid all unnecessary exposure.

#### Materials for protective clothing:

Wear suitable protective clothing

### Hand protection:

Breakthrough time: refer to the recommendations of the supplier

Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
	Nitrile rubber (NBR), Neoprene rubber (HNBR)	5 (> 240 minutes)	0.7		EN 374
	Polyvinylchloride (PVC)	2 (> 30 minutes)	0.4		EN 374

#### Eye protection:

Chemical goggles or safety glasses. Use splash goggles when eye contact due to splashing is possible. EN 166

#### Skin and body protection:

Avoid prolonged and repeated contact with skin. If repeated skin contact or contamination of clothing is likely, protective clothing should be worn

#### Respiratory protection:

Where excessive vapour, mist, or dust may result, use approved respiratory protection equipment. Particle filter. EN 143







#### **Environmental exposure controls:**

(see section(s): SECTION 12. SECTION 6. Avoid release to the environment.

#### Other information:

Do not eat, drink or smoke during use.

#### **SECTION 9: Physical and chemical properties**

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

Physical state : Liquid Appearance : Characteristics. Colour : light brown. Odour : Characteristics. Odour threshold No data available : No data available рΗ Relative evaporation rate (butylacetate=1) : No data available Melting point : Not applicable

Freezing point : -36

Boiling point : No data available

Flash point : 232 °C

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Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : Non flammable

Vapour pressure : > 1

Relative vapour density at 20 °C : No data available Relative density : No data available Density : 903,6 kg/l @15°C Solubility : insoluble in water. Log Pow : No data available : 95 mm²/s @40°C Viscosity, kinematic Viscosity, dynamic : No data available Explosive properties : No data available Oxidising properties : No data available Explosive limits : No data available

9.2. Other information

Other properties : See Product Data Sheet for detailed information.

## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Stable at ambient temperature and under normal conditions of use.

### 10.2. Chemical stability

Not established.

#### 10.3. Possibility of hazardous reactions

Not established.

#### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

## 10.5. Incompatible materials

Strong acids. Strong bases.

Additional information

Additional information

Aspiration hazard

#### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

## **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Acute toxicity	. Not classified
Phosphorodithioic acid, mixed O,O-b	is(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts (68784-31-6)
LD50 oral (rat)	3150 mg/kg OECD 401
Skin corrosion/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
	Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Not classified

Petromark Hydraulic Valve Lifter

Viscosity, kinematic 95 mm²/s @40°C

: Not classified

: Based on available data, the classification criteria are not met

: Based on available data, the classification criteria are not met

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Potential adverse human health effects and

: Based on available data, the classification criteria are not met.

symptoms

## **SECTION 12: Ecological information**

#### 12.1. Toxicity

Ecology - general : No ecotoxicological data about this product are known.

Ecology - water : Will float and can be reignited on water surface.

### Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts (68784-31-6)

EC50 72h algae (1) 10000 mg/l 1 Day

#### 12.2. Persistence and degradability

#### Petromark Hydraulic Valve Lifter

Persistence and degradability Not established.

#### 12.3. Bioaccumulative potential

#### Petromark Hydraulic Valve Lifter

Bioaccumulative potential Not established.

#### Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts (68784-31-6)

Log Kow 0,56 0.1 Days

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

Additional information : Avoid release to the environment

#### **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of

contents/container to hazardous or special waste collection point, in accordance with local,

regional, national and/or international regulation.

Additional information : Dangerous substance.

Ecology - waste materials : Avoid release to the environment.

European List of Waste (LoW) code : 13 02 05\* - mineral-based non-chlorinated engine, gear and lubricating oils

## **SECTION 14: Transport information**

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

UN-No. (ADR) : Not applicable
UN-No. (IMDG) : Not applicable
UN-No. (IATA) : Not applicable
UN-No. (ADN) : Not applicable
UN-No. (RID) : Not applicable

## 14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable
Proper Shipping Name (ADN) : Not applicable
Proper Shipping Name (RID) : Not applicable

## 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : Not applicable

## IMDG

Transport hazard class(es) (IMDG) : Not applicable

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IATA

Transport hazard class(es) (IATA) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not applicable

**RID** 

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No Marine pollutant : No

Other information : No supplementary information available

#### 14.6. Special precautions for user

#### - Overland transport

No data available

#### - Transport by sea

No data available

## - Air transport

No data available

#### - Inland waterway transport

No data available

#### - Rail transport

No data available

## 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

#### **SECTION 15: Regulatory information**

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

## 15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) 3, severe hazard to waters (Classification according to VwVwS,

Annex 4)

WGK remark : Classification in compliance with Verwaltungsvorschriftwassergefährdender Stoffe (VwVwS) of

17 May 1999

12th Ordinance Implementing the Federal

Immission Control Act - 12.BImSchV

: Is not subject of the 12. BlmSchV (Hazardous Incident Ordinance)

Netherlands

Ministry's list of carcinogens : Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts is listed Ministry's list of mutagens : Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts is listed

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NON-exhaustive list of reproductive toxins -

Breastfeeding

NON-exhaustive list of reproductive toxins - : None of the components are listed

Fertility

NON-exhaustive list of reproductive toxins -

Evolution

: None of the components are listed

: None of the components are listed

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## **SECTION 16: Other information**

#### Indication of changes:

	Supersedes	Added	
	Revision date	Added	
8.2	Skin and body protection	Modified	
8.2	Hand protection	Modified	
8.2	Materials for protective clothing	Modified	

#### Abbreviations and acronyms:

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  ADR European Agreement concerning the International Carriage of Dangerous Goods by Road  ATE Acute Toxicity Estimate  BCF Bioconcentration factor  CLP Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008  DMEL Derived Minimal Effect level  DNEL Derived-No Effect Level  ECS0 Median effective concentration  IARC International Agency for Research on Cancer  IATA International Air Transport Association  IMDG International Maritime Dangerous Goods  LC50 Median lethal concentration  LD50 Median lethal dose  LOAEL Lowest Observed Adverse Effect Level  NOAEC No-Observed Adverse Effect Concentration  NOAEL No-Observed Adverse Effect Level  NOEC No-Observed Adverse Effect Level  NOEC No-Observed Effect Concentration  QECD Organisation for Economic Co-operation and Development  REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006  PNEC Predicted No-Effect Concentration  REACH Regulations concerning the International Carriage of Dangerous Goods by Rail  SDS Safety Data Sheet	Abbreviations and actoriyms.				
ATE Acute Toxicity Estimate BCF Bioconcentration factor CLP Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008  DMEL Derived Minimal Effect level DNEL Derived-No Effect Level EC50 Median effective concentration IARC International Agency for Research on Cancer IATA International Air Transport Association IMDG International Maritime Dangerous Goods LC50 Median lethal concentration LD50 Median lethal dose LOAEL Lowest Observed Adverse Effect Level NOAEC No-Observed Adverse Effect Level NOAEC No-Observed Adverse Effect Level NOEC No-Observed Effect Concentration CECD Organisation for Economic Co-operation and Development REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 PNEC Predicted No-Effect Concentration PBT Persistent Bioaccumulative Toxic RID Regulations concerning the International Carriage of Dangerous Goods by Rail	ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways			
BCF Bioconcentration factor  CLP Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008  DMEL Derived Minimal Effect level  DNEL Derived-No Effect Level  EC50 Median effective concentration  IARC International Agency for Research on Cancer  IATA International Air Transport Association  IMDG International Maritime Dangerous Goods  LC50 Median lethal concentration  LD50 Median lethal concentration  LD50 Median lethal dose  LOAEL Lowest Observed Adverse Effect Level  NOAEC No-Observed Adverse Effect Concentration  NOAEL No-Observed Adverse Effect Level  NOEC No-Observed Effect Concentration  OECD Organisation for Economic Co-operation and Development  REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006  PNEC Predicted No-Effect Concentration  PBT Persistent Bioaccumulative Toxic  RID Regulations concerning the International Carriage of Dangerous Goods by Rail	ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road			
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LD50 Median lethal dose  LOAEL Lowest Observed Adverse Effect Level  NOAEC No-Observed Adverse Effect Concentration  NOAEL No-Observed Adverse Effect Level  NOEC No-Observed Effect Concentration  OECD Organisation for Economic Co-operation and Development  REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006  PNEC Predicted No-Effect Concentration  PBT Persistent Bioaccumulative Toxic  RID Regulations concerning the International Carriage of Dangerous Goods by Rail	IMDG	International Maritime Dangerous Goods			
LOAEL Lowest Observed Adverse Effect Level  NOAEC No-Observed Adverse Effect Concentration  NOAEL No-Observed Adverse Effect Level  NOEC No-Observed Effect Concentration  OECD Organisation for Economic Co-operation and Development  REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006  PNEC Predicted No-Effect Concentration  PBT Persistent Bioaccumulative Toxic  RID Regulations concerning the International Carriage of Dangerous Goods by Rail	LC50	Median lethal concentration			
NOAEC No-Observed Adverse Effect Concentration  NOAEL No-Observed Adverse Effect Level  NOEC No-Observed Effect Concentration  OECD Organisation for Economic Co-operation and Development  REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006  PNEC Predicted No-Effect Concentration  PBT Persistent Bioaccumulative Toxic  RID Regulations concerning the International Carriage of Dangerous Goods by Rail	LD50	Median lethal dose			
NOAEL No-Observed Adverse Effect Level  NOEC No-Observed Effect Concentration  OECD Organisation for Economic Co-operation and Development  REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006  PNEC Predicted No-Effect Concentration  PBT Persistent Bioaccumulative Toxic  RID Regulations concerning the International Carriage of Dangerous Goods by Rail	LOAEL	Lowest Observed Adverse Effect Level			
NOEC No-Observed Effect Concentration OECD Organisation for Economic Co-operation and Development REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 PNEC Predicted No-Effect Concentration PBT Persistent Bioaccumulative Toxic RID Regulations concerning the International Carriage of Dangerous Goods by Rail	NOAEC	No-Observed Adverse Effect Concentration			
OECD Organisation for Economic Co-operation and Development  REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006  PNEC Predicted No-Effect Concentration  PBT Persistent Bioaccumulative Toxic  RID Regulations concerning the International Carriage of Dangerous Goods by Rail	NOAEL	No-Observed Adverse Effect Level			
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006  PNEC Predicted No-Effect Concentration  PBT Persistent Bioaccumulative Toxic  RID Regulations concerning the International Carriage of Dangerous Goods by Rail	NOEC	No-Observed Effect Concentration			
PNEC Predicted No-Effect Concentration  PBT Persistent Bioaccumulative Toxic  RID Regulations concerning the International Carriage of Dangerous Goods by Rail	OECD	Organisation for Economic Co-operation and Development			
PBT Persistent Bioaccumulative Toxic RID Regulations concerning the International Carriage of Dangerous Goods by Rail	REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006			
RID Regulations concerning the International Carriage of Dangerous Goods by Rail	PNEC	Predicted No-Effect Concentration			
	PBT	Persistent Bioaccumulative Toxic			
SDS Safety Data Sheet	RID	Regulations concerning the International Carriage of Dangerous Goods by Rail			
	SDS	Safety Data Sheet			
vPvB Very Persistent and Very Bioaccumulative	vPvB	Very Persistent and Very Bioaccumulative			

Data sources

: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

### Full text of H- and EUH-statements:

Hazardous to the aquatic environment — Chronic Hazard, Category 2
Hazardous to the aquatic environment — Chronic Hazard, Category 4
Serious eye damage/eye irritation, Category 1
Sensitisation — Skin, Category 1
Sensitisation — Skin, category 1B
May cause an allergic skin reaction
Causes serious eye damage
Causes serious eye irritation
Toxic to aquatic life with long lasting effects

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

H412	Harmful to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life

SDS EU (REACH Annex II)

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