

# SAFETY DATA SHEET

According to Commission Regulation (EU) 2015/830, Amending Regulation (EC) No 1907/2006

Printing date 24.08.2021

Revision: 24.08.2021

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

### 1.1 Product identifier

Trade name:

**P&O/ KALOCHEM BLUE OCEAN R&D**

Article number:

4286370

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

Application of the substance / the mixture

Not for personal use. Only for industrial use.

This material is for industrial use only in household products, cosmetics, fragrances and fragranced products. Our products are Inedible and are not used for food production.

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

Manufacturer/Supplier:

GÜLÇİÇEK KİMYA VE UÇANYAĞLAR SANAYİ VE TİCARET A.Ş.  
G.O.S.B. Gebze OSB Mah. 3300 Cad. No:3306/1 PK.41400  
Gebze – Kocaeli / TÜRKİYE

Further information obtainable from:

kalite@gulcicek.com

1.4 Emergency telephone number:

+90 (262) 677 00 00 pbx Only available during office hours (UTC+2)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

The product is classified and labelled according to the CLP regulation.



GHS07

GHS09

Signal word

Warning

Hazard-determining components of labelling:

alpha-Hexylcinnamaldehyde

1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone

Linalool

dl-Citronellol

Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P261

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

P273

Avoid release to the environment.

P280

Wear protective gloves / eye protection / face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

P333+P313

If skin irritation or rash occurs: Get medical advice/attention.

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

### 2.3 Other hazards

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

## SECTION 3: Composition/information on ingredients

Description:

Multi component mixture.

Dangerous components:

CAS: 101-86-0	alpha-Hexylcinnamaldehyde	5-10%
EINECS: 202-983-3	Aquatic Acute 1, H400; Aquatic Chronic 2, H411; Skin Sens. 1B, H317	
CAS: 54464-57-2	1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone	5-10%
EINECS: 259-174-3	Aquatic Chronic 1, H410; Skin Irrit. 2, H315; Skin Sens. 1B, H317	
CAS: 78-70-6	Linalool	5-10%
EINECS: 201-134-4	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1B, H317	
Index number: 603-235-00-2		

# SAFETY DATA SHEET

According to Commission Regulation (EU) 2015/830, Amending Regulation (EC) No 1907/2006

Printing date 24.08.2021

Revision: 24.08.2021

Trade name: **P&O/ KALOCHEM BLUE OCEAN R&D**

		(Contd. of page 1)
CAS: 60-12-8	Phenethyl alcohol	5-10%
EINECS: 200-456-2	Acute Tox. 4, H302; Eye Irrit. 2, H319	
CAS: 140-11-4	benzyl acetate	2.5-5%
EINECS: 205-399-7	Aquatic Chronic 3, H412	
CAS: 63500-71-0	2-Isobutyl-4-methyltetrahydro-2H-pyran-4-ol	2.5-5%
ELINCS: 405-040-6	Eye Irrit. 2, H319	
CAS: 1222-05-5	1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	1-2.5%
EINECS: 214-946-9	Aquatic Acute 1, H400; Aquatic Chronic 1, H410	
Index number: 603-212-00-7		
CAS: 106-22-9	dl-Citronellol	1-2.5%
EINECS: 203-375-0	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1B, H317	
CAS: 1335-46-2	Methyl ionone (mixture of isomers)	1-2.5%
EINECS: 215-635-0	Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Skin Sens. 1B, H317	
CAS: 13254-34-7	2,6-Dimethyl-2-heptanol	1-2.5%
EINECS: 236-244-1	Skin Irrit. 2, H315; Eye Irrit. 2, H319	
CAS: 103-95-7	2-Methyl-3-(p-isopropylphenyl)propionaldehyde	1-2.5%
EINECS: 203-161-7	Skin Irrit. 2, H315; Skin Sens. 1B, H317; Aquatic Chronic 3, H412	
CAS: 106-24-1	Geraniol	0.1-1%
EINECS: 203-377-1	Eye Dam. 1, H318; Skin Irrit. 2, H315; Skin Sens. 1B, H317	
CAS: 37677-14-8	Isohexenyl cyclohexenyl carboxaldehyde	0.1-1%
EINECS: 253-617-4	Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Irrit. 2, H315; Skin Sens. 1B, H317	
CAS: 4180-23-8	trans-Anethole	0.1-1%
EINECS: 224-052-0	Skin Sens. 1B, H317	
CAS: 68039-49-6	2,4-Dimethyl-3-cyclohexen-1-carboxaldehyde	0.1-1%
EINECS: 268-264-1	Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 118-58-1	Benzyl Salicylate	0.1-1%
EINECS: 204-262-9	Eye Irrit. 2, H319; Skin Sens. 1B, H317; Aquatic Chronic 3, H412	
CAS: 106-25-2	nerol	0.1-1%
EINECS: 203-378-7	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1B, H317	
CAS: 18096-62-3	4,4a,5,9b-Tetrahydroindeno[1,2-d]-1,3-dioxine	0.1-1%
EINECS: 241-997-4	Repr. 2, H361	
CAS: 128-37-0	Butylated hydroxytoluene	0.1-1%
EINECS: 204-881-4	Aquatic Acute 1, H400; Aquatic Chronic 1, H410	
CAS: 112-45-8	10-Undecenal	≤0.1%
EINECS: 203-973-1	Skin Sens. 1B, H317; Aquatic Chronic 3, H412	

. **Additional information:** For the wording of the listed hazard phrases refer to section 16.

## SECTION 4: First aid measures

### . 4.1 Description of first aid measures

- . **After inhalation:** Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- . **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- . **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- . **After swallowing:** If symptoms persist consult doctor.

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

No further relevant information available.

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

No further relevant information available.

## SECTION 5: Firefighting measures

### . 5.1 Extinguishing media

- . **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.  
CO<sub>2</sub>, foam, dry chemical.  
Never use a direct water jet on burning material.

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

No further relevant information available.

### . 5.3 Advice for firefighters

- . **Protective equipment:** Wear self-contained respiratory protective device.  
Do not inhale explosion gases or combustion gases.
- . **Additional information** Cool endangered receptacles with water spray.

## SECTION 6: Accidental release measures

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

Ensure adequate ventilation  
Particular danger of slipping on leaked/spilled product.  
Keep away from ignition sources.  
Wear protective clothing.

### . 6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.

# SAFETY DATA SHEET

According to Commission Regulation (EU) 2015/830, Amending Regulation (EC) No 1907/2006

Printing date 24.08.2021

Revision: 24.08.2021

Trade name: **P&O/ KALOCHEM BLUE OCEAN R&D**

(Contd. of page 2)

**6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.  
Clean the affected area carefully; suitable cleaners are:  
Warm water and cleansing agent  
Organic solvent

**6.4 Reference to other sections**

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## SECTION 7: Handling and storage

**7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.

**Information about fire - and explosion protection:**

No special measures required.

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

**Storage:**

**Requirements to be met by storerooms and receptacles:**

No special requirements.

**Information about storage in one common storage facility:**

Not required.

**Further information about storage conditions:**

Store receptacle in a well ventilated area.  
Protect from humidity and water.  
Protect from exposure to the light.  
Store in a cool place.

**7.3 Specific end use(s)**

No further relevant information available.

## SECTION 8: Exposure controls/personal protection

**Additional information about design of technical facilities:**

No further data; see item 7.

**8.1 Control parameters**

**Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**DNELs**

**101-86-0 alpha-Hexylcinnamaldehyde**

Dermal DNEL Chronic Local 0.525 mg/cm2 (workers)  
DNEL Chronic Systemic 18.2 mg/kg-bw/day (workers)  
DNEL Acute Local 0.525 mg/cm2 (workers)  
Inhalative DNEL Acute Local 6.28 mg/m3 (workers)  
DNEL Chronic Systemic 0.078 mg/m3 (workers)

**54464-57-2 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone**

Dermal DNEL Acute Local 0.1011 mg/cm2 (workers)  
Inhalative DNEL Chronic Systemic 1.76 mg/m3 (workers)

**PNECs**

**101-86-0 alpha-Hexylcinnamaldehyde**

PNEC aqua fw 0.03 mg/l  
PNEC aqua m 0.003 mg/l  
PNEC STP 10 mg/l  
PNEC sediment fw 4.7 mg/kg dwt  
PNEC sediment m 4.77 mg/kg dwt  
PNEC soil 9.51 mg/kg dwt  
PNEC sec. poisoning 6.6 mg/kg

**Additional information:**

The lists valid during the making were used as basis.

**8.2 Exposure controls**

**Personal protective equipment:**

**General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the skin.  
Avoid contact with the eyes and skin.  
Do not eat or drink while working.

**Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

**Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Contd. on page 4)

EU

# SAFETY DATA SHEET

According to Commission Regulation (EU) 2015/830, Amending Regulation (EC) No 1907/2006

Printing date 24.08.2021

Revision: 24.08.2021

Trade name: **P&O/ KALOCHEM BLUE OCEAN R&D**

(Contd. of page 3)

<ul style="list-style-type: none"> <li>. <b>Material of gloves</b></li> <li>. <b>Penetration time of glove material</b></li> <li>. <b>Eye protection:</b></li> <li>. <b>Body protection:</b></li> </ul>	<p>The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.</p> <p>Goggles recommended during refilling Protective work clothing</p>
---	---

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

#### Appearance:

. <b>Form:</b>	Clear, Liquid
. <b>Colour:</b>	Colorless
. <b>Odour:</b>	Fresh, Aquatic

. **Flash point:** >100°C

. **Auto-ignition temperature:** Product is not selfigniting.

. **Explosive properties:** Product does not present an explosion hazard.

. **Density at 25°C:** 1.009 - 1.019 g/cm<sup>3</sup>

. **Refractive Index at 25° C:** 1.4930-1.5000

. **Solubility in / Miscibility with water:** Fully miscible.

. **alcohols:** Fully miscible.

. **9.2 Other information** No further relevant information available.

## SECTION 10: Stability and reactivity

. **10.1 Reactivity** No further relevant information available.

. **10.2 Chemical stability** Stable in standard conditions.

. **Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications.

. **10.3 Possibility of hazardous reactions** It presents no significant reactivity hazards, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

. **10.4 Conditions to avoid** Direct heat sources.

. **10.5 Incompatible materials:** No further relevant information available.

. **10.6 Hazardous decomposition products:** Carbon Monoxide and Unidentified organic compounds may be formed during combustion.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

. **Acute toxicity** Based on available data, the classification criteria are not met.

#### LD/LC50 values relevant for classification:

##### 101-86-0 alpha-Hexylcinnamaldehyde

Oral	LD50	3100 mg/kg (rat)
Dermal	LD50	>3000 mg/kg (rabbit)
Inhalative	LC50/4 h	>5 mg/l (rat)

##### 54464-57-2 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	5000 mg/kg (rat)

##### 1222-05-5 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran

Oral	LD50	>4640 mg/kg (rat)
Dermal	LD50	>6500 mg/kg (rat)

##### 106-22-9 dl-Citronellol

Oral	LD50	3450 mg/kg (rat)
Dermal	LD50	2650 mg/kg (rabbit)

##### 1335-46-2 Methyl ionone (mixture of isomers)

Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	2900 mg/kg
		>5000 mg/kg (rabbit)

##### 128-37-0 Butylated hydroxytoluene

Oral	LD50	2930-6000 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rat)

#### Primary irritant effect:

. **Skin corrosion/irritation** Causes skin irritation.

. **Serious eye damage/irritation** Causes serious eye irritation.

. **Respiratory or skin sensitisation** May cause an allergic skin reaction.

#### CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

. **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

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

. **Reproductive toxicity** Based on available data, the classification criteria are not met.

. **STOT-single exposure** Based on available data, the classification criteria are not met.

(Contd. on page 5)

# SAFETY DATA SHEET

According to Commission Regulation (EU) 2015/830, Amending Regulation (EC) No 1907/2006

Printing date 24.08.2021

Revision: 24.08.2021

Trade name: **P&O/ KALOCHEM BLUE OCEAN R&D**

(Contd. of page 4)

- . STOT-repeated exposure Based on available data, the classification criteria are not met.
- . Aspiration hazard Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

- . **12.1 Toxicity**
- . **Aquatic toxicity:**
  - 101-86-0 alpha-Hexylcinnamaldehyde**
  - LC50 96h 1.7 mg/l (fish)
  - 54464-57-2 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone**
  - EC50 48h 1.38 mg/l (daphnia)
  - EC50 72h 2.6 mg/l (alg)
  - LC50 96h 1.3 mg/l (fish)
  - NOEC 42 h >100 mg/l (bacteria)
  - NOEC 30 d 0.16 mg/l (fish)
  - NOEC 21 d 0.028 mg/l (daphnia)
  - 1222-05-5 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran**
  - EC50 48h 0.9 mg/l (daphnia)
  - ErC50 72h >0.854 mg/l (alg)
  - EbC50 72h >0.723 mg/l (alg)
  - LC50 21d 0.452 mg/l (fish)
  - NOEC 21 d 0.111 mg/l (daphnia)
  - 1335-46-2 Methyl ionone (mixture of isomers)**
  - LC50 96h 10.9 mg/l (fish) (OECD 203)
- . **12.2 Persistence and degradability** No further relevant information available.
- . **12.3 Bioaccumulative potential** No further relevant information available.
- . **12.4 Mobility in soil** No further relevant information available.
- . **Ecotoxicological effects:**
- . **Remark:** Toxic for fish
- . **Additional ecological information:**
- . **General notes:** Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water  
Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
Danger to drinking water if even extremely small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms
- . **12.5 Results of PBT and vPvB assessment**
- . **PBT:** Not applicable.
- . **vPvB:** Not applicable.
- . **12.6 Other adverse effects** No further relevant information available.

## SECTION 13: Disposal considerations

- . **13.1 Waste treatment methods**
- . **Recommendation** Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- . **Uncleaned packaging:**
- . **Recommendation:** Disposal must be made according to official regulations.
- . **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

## SECTION 14: Transport information

- . **14.1 UN-Number** UN3082
- . **ADR, IMDG, IATA**
- . **14.2 UN proper shipping name** 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone, alpha-Hexylcinnamaldehyde)
- . **ADR** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone, alpha-Hexylcinnamaldehyde), MARINE POLLUTANT
- . **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone, alpha-Hexylcinnamaldehyde)
- . **IATA**
- . **14.3 Transport hazard class(es)**
- . **ADR, IMDG, IATA**
- . **Class** 9 Miscellaneous dangerous substances and articles.
- . **Label** 9
- . **14.4 Packing group**
- . **ADR, IMDG, IATA** III



(Contd. on page 6)

# SAFETY DATA SHEET

According to Commission Regulation (EU) 2015/830, Amending Regulation (EC) No 1907/2006

Printing date 24.08.2021

Revision: 24.08.2021

Trade name: **P&O/ KALOChem BLUE OCEAN R&D**

(Contd. of page 5)

**14.5 Environmental hazards:**

- . Marine pollutant: Symbol (fish and tree)
- . Special marking (ADR): Symbol (fish and tree)
- . Special marking (IATA): Symbol (fish and tree)
- . 14.6 Special precautions for user Warning: Miscellaneous dangerous substances and articles.
- . Hazard identification number (Kemler code): 90
- . EMS Number: F-A,S-F
- . Stowage Category: A
- . 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.

**Transport/Additional information:**

- . ADR
- . Limited quantities (LQ) 5L
- . Excepted quantities (EQ) Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml
- . Transport category 3
- . Tunnel restriction code -

**IMDG**

- . Limited quantities (LQ) 5L
- . Excepted quantities (EQ) Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml
- . UN "Model Regulation": UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-(1,2,3,4,5,6,7,8-OCTAHYDRO-2,3,8,8-TETRAMETHYL-2-NAPHTHALENYL)ETHANONE, ALPHA-HEXYLCINNAMALDEHYDE), 9, III

## SECTION 15: Regulatory information

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

- . Directive 2012/18/EU
- . Named dangerous substances - ANNEX I None of the ingredients is listed.
- . Seveso category E2 Hazardous to the Aquatic Environment
- . Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
- . Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- . REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- . DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II
- None of the ingredients is listed.
- . 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- . Relevant phrases H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H361 Suspected of damaging fertility or the unborn child.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H411 Toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.
- . Recommended restriction of use This material is for industrial use only in household products, cosmetics, fragrances and fragranced products.  
Our products are Inedible and are not used for food production.
- . Classification according to Regulation (EC) No 1272/2008 The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.
- . Customs tariffs: 3302.90.90.00.00
- . Contact: S.Ulker  
kalite@gulcicek.com
- . Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
DNEL: Derived No-Effect Level (REACH)  
PNEC: Predicted No-Effect Concentration (REACH)  
LC50: Lethal concentration, 50 percent

(Contd. on page 7)

# SAFETY DATA SHEET

According to Commission Regulation (EU) 2015/830, Amending Regulation (EC) No 1907/2006

Printing date 24.08.2021

Revision: 24.08.2021

**Trade name:** *P&O/ KALOCHEM BLUE OCEAN R&D*

(Contd. of page 6)

LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Acute Tox. 4: Acute toxicity - oral – Category 4  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
Skin Sens. 1: Skin sensitisation – Category 1  
Skin Sens. 1B: Skin sensitisation – Category 1B  
Repr. 2: Reproductive toxicity – Category 2  
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1  
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1  
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2  
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

— EU —