



ENDURECEDOR PAVINEUCE EPÓXI
Code: 10101400



Version: 6 Revision: 21/01/2020

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SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

| | | |
|-----|---|---|
| 1.1 | <u>PRODUCT IDENTIFIER:</u> | ENDURECEDOR PAVINEUCE EPÓXI Code: 10101400 |
| 1.2 | <u>RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST:</u> <u>Intended uses (main technical functions):</u> # Hardener, in combination with hydroxylated polymers, mainly polyesters and polyacrylates, in order to prepare 2 component systems. <u>Sectors of use:</u> # Industrial manufacturing (SU3). # Professional uses (SU22). <u>Uses advised against:</u> # This product is not recommended for any use or sector of use (industrial, professional or consumer) other than those previously listed as 'Intended or identified uses'. For professional use only. <u>Restrictions on manufacture, placing on market and use, according to Annex XVII of Regulation (EC) No. 1907/2006:</u> # Restricted to professional users. Contains CMR substances, categories 1A or 1B: Restricted to professional users. Forbidden to the general public. The restrictions do not apply to storage, keeping, treatment, filling into containers, or transfer from one container to another of the substances for export. See entry 28 and/or 29 and/or 30 in the Annex of the Regulation (EC) No. 552/2009~276/2010. | [X] Industrial [X] Professional |
| 1.3 | <u>DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET:</u> NEUCE - Indústria de Tintas, S.A. Rua Francisco Rocha - Aptdo. 4514 - 3700-892 - Romariz SJM (Portugal) Phone: +351 256 840040 - Fax: +351 256 840049 <u>E-mail address of the person responsible for the Safety Data Sheet:</u> e-mail: geral@neuce.pt | |
| 1.4 | <u>EMERGENCY TELEPHONE NUMBER:</u> +351 256 840041 (9:00-18:30 h.) (working hours) | |

SECTION 2 : HAZARDS IDENTIFICATION

| 2.1 | <u>CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:</u> Classification of mixtures is carried out in accordance with the following principles: a) when data (tests) for the classification of mixtures are available, generally is carried out based on the data, b) in the absence of data (tests) for mixtures are generally used interpolation or extrapolation methods of assessing the risk, using the available data for mixtures similarly classified, and c) in the absence of tests and information which would allow to apply interpolation or extrapolation techniques, methods are used to classify risk assessment based on the data of the individual components in the mixture. <u>Classification in accordance with Regulation (EU) No. 1272/2008~2018/1480 (CLP):</u> DANGER: Flam. Liq. 3:H226 Skin Irrit. 2:H315 Eye Dam. 1:H318 Muta. 1B:H340 Carc. 1B:H350 Aquatic Chronic 3:H412 EUH066 | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|----------------------|-------------------------------|---------------------|---|---------------|---------|-----------------------------|--|----------------|-----------------------|-------------------|------------------------------------|--------------------------|--|----------------------|---------------------------|---------------------|---|---------------------|--|--|--|--|--|--|
| | <table border="1"> <thead> <tr> <th>Danger class</th> <th>Classification of the mixture</th> <th>Cat.</th> <th>Routes of exposure</th> <th>Target organs</th> <th>Effects</th> </tr> </thead> <tbody> <tr> <td><u>Physicochemical:</u> </td> <td>Flam. Liq. 3:H226 Skin Irrit. 2:H315 Eye Dam. 1:H318</td> <td>c) c) c)</td> <td>Cat.3 Skin Eyes</td> <td>- Skin Eyes</td> <td>- Irritation Serious lesions</td> </tr> <tr> <td><u>Human health:</u> </td> <td>Muta. 1B:H340 Carc. 1B:H350 Aquatic Chronic 3:H412 EUH066</td> <td>c) c) c) c)</td> <td>Cat.1B . . Cat.3</td> <td>. . . Skin</td> <td>Genetic defects Cancer - Dryness, Cracking</td> </tr> <tr> <td><u>Environment:</u></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | Danger class | Classification of the mixture | Cat. | Routes of exposure | Target organs | Effects | <u>Physicochemical:</u> | Flam. Liq. 3:H226 Skin Irrit. 2:H315 Eye Dam. 1:H318 | c) c) c) | Cat.3 Skin Eyes | - Skin Eyes | - Irritation Serious lesions | <u>Human health:</u> | Muta. 1B:H340 Carc. 1B:H350 Aquatic Chronic 3:H412 EUH066 | c) c) c) c) | Cat.1B . . Cat.3 | . . . Skin | Genetic defects Cancer - Dryness, Cracking | <u>Environment:</u> | | | | | | |
| Danger class | Classification of the mixture | Cat. | Routes of exposure | Target organs | Effects | | | | | | | | | | | | | | | | | | | | | |
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| <u>Human health:</u> | Muta. 1B:H340 Carc. 1B:H350 Aquatic Chronic 3:H412 EUH066 | c) c) c) c) | Cat.1B . . Cat.3 | . . . Skin | Genetic defects Cancer - Dryness, Cracking | | | | | | | | | | | | | | | | | | | | | |
| <u>Environment:</u> | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Full text of hazard statements mentioned is indicated in section 16. | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Note: When in section 3 a range of percentages is used, the health and environmental hazards describe the effects of the highest concentration of each component, but below the maximum value. | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | |
|-----|---|--|
| 2.2 | <u>LABEL ELEMENTS:</u> <u>Hazard statements:</u> H226 H350 H340 H315 H318 H412 <u>Precautionary statements:</u> P102 P201-P202-P405 P210 | This product is labelled with the signal word DANGER in accordance with Regulation (EU) No. 1272/2008~2018/1480 (CLP) Flammable liquid and vapour. May cause cancer. May cause genetic defects. Causes skin irritation. Causes serious eye damage. Harmful to aquatic life with long lasting effects. Keep out of reach of children. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Store locked up. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
|-----|---|--|



ENDURECEDOR PAVINEUCE EPÓXI
Code: 10101400



P280C
P303+P361+P353-P352-P312
P305+P351+P338-P310
P273-P501a
[Supplementary statements:](#)
EUC028
[Substances that contribute to classification:](#)
Xylene
Cyclohexanone

Wear protective gloves, clothing and eye protection.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash with plenty of soap and water. Call a POISON CENTER or doctor if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
Avoid release to the environment. Dispose of contents/container in accordance with local regulations.

Restricted to professional users.

2.3 [OTHER HAZARDS:](#)
Hazards which do not result in classification but which may contribute to the overall hazards of the mixture:
[Other physicochemical hazards:](#) # No other relevant adverse effects are known.
[Other adverse human health effects:](#) # Prolonged exposure to vapours may produce transient drowsiness.
[Other negative environmental effects:](#) Does not contain substances that fulfil the PBT/vPvB criteria.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.1 [SUBSTANCES:](#)
Not applicable (mixture).

3.2 [MIXTURES:](#)
This product is a mixture.
[Chemical description:](#)
Solution of fatty acids/isophthalic acid/teta aduct.
[HAZARDOUS INGREDIENTS:](#)
Substances taking part in a percentage higher than the exemption limit:

| | | | |
|---------------|---|-------------------------|--|
| 40 < 50 % | Fatty acids, C18-unsatd CAS: 198028-08-9, EC: Polymer CLP: Warning: Skin Irrit. 2:H315 Eye Irrit. 2:H319 Aquatic Chronic 3:H412 | REACH: Exempt (polymer) | Autoclassified |
| 30 < 40 % | Aromatic hydrocarbons C8 (redistillate) CAS: 90989-38-1, EC: 292-694-9 CLP: Danger: Flam. Liq. 3:H226 Acute Tox. (inh.) 4:H332 Acute Tox (skin) 4:H312 Skin Irrit. 2:H315 Muta. 1B:H340 Carc. 1B:H350 Asp. Tox. 1:H304 | | Index No. 648-010-00-X < ATP01 |
| 5 < 10 % | Isobutylmethylketone CAS: 108-10-1, EC: 203-550-1 CLP: Danger: Flam. Liq. 2:H225 Acute Tox. (inh.) 4:H332 Eye Irrit. 2:H319 STOT SE (irrit.) 3:H335 EUH066 | REACH: 01-2119473980-30 | Index No. 606-004-00-4 < REACH / CLP00 |
| 2,5 < 5 % | 1-methoxy-2-propanol CAS: 107-98-2, EC: 203-539-1 CLP: Warning: Flam. Liq. 3:H226 STOT SE (narcosis) 3:H336 | REACH: 01-2119457435-35 | Index No. 603-064-00-3 < REACH / ATP01 |
| 2,5 < 5 % | Xylene (mixture of isomers) CAS: 1330-20-7, EC: 215-535-7 CLP: Danger: Flam. Liq. 3:H226 Acute Tox. (inh.) 4:H332 Acute Tox (skin) 4:H312 Skin Irrit. 2:H315 Eye Irrit. 2:H319 STOT SE (irrit.) 3:H335 STOT RE 2:H373i Asp. Tox. 1:H304 | REACH: 01-2119488216-32 | Index No. 601-022-00-9 < REACH |
| 2,5 < 5 % | Cyclohexanone CAS: 108-94-1, EC: 203-631-1 CLP: Danger: Flam. Liq. 3:H226 Acute Tox. (inh.) 4:H332 Acute Tox (skin) 4:H312 Acute Tox. (oral) 4:H302 Skin Irrit. 2:H315 Eye Dam. 1:H318 | REACH: 01-2119453616-35 | Index No. 606-010-00-7 < REACH |
| 1 < 2 % | Ethylbenzene CAS: 100-41-4, EC: 202-849-4 CLP: Danger: Flam. Liq. 2:H225 Acute Tox. (inh.) 4:H332 STOT RE 2:H373iE Asp. Tox. 1:H304 Aquatic Chronic 3:H412 | | Index No. 601-023-00-4 < Autoclassified |

[Impurities:](#)
Does not contain other components or impurities which will influence the classification of the product.

[Stabilizers:](#)
None

[Reference to other sections:](#)
For more information on hazardous ingredients, see sections 8, 11, 12 and 16.

[SUBSTANCES OF VERY HIGH CONCERN \(SVHC\):](#)
List updated by ECHA on 15/01/2019.
[Substances SVHC subject to authorisation, included in Annex XIV of Regulation \(EC\) no. 1907/2006:](#)
None
[Substances SVHC candidate to be included in Annex XIV of Regulation \(EC\) no. 1907/2006:](#)
None

[PERSISTENT, BIOACCUMULABLE AND TOXIC PBT, OR VERY PERSISTENT AND VERY BIOACCUMULABLE VPvB SUBSTANCES:](#)
Does not contain substances that fulfil the PBT/vPvB criteria.



ENDURECEDOR PAVINEUCE EP ÓXI
Code: 10101400



SECTION 4 : FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST-AID MEASURES:



In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Never give anything by mouth to an unconscious person. Lifeguards should pay attention to self-protection and use the recommended protective equipment if there is a possibility of exposure. Wear protective gloves when administering first aid.

| Route of exposure | Symptoms and effects, acute and delayed | Description of first-aid measures |
|--------------------|---|---|
| <u>Inhalation:</u> | # Usually produces no symptoms. | Remove the patient out of the contaminated area into the fresh air. If breathing is irregular or stops, administer artificial respiration. If the person is unconscious, place in appropriate recovery position. Keep the patient warm and at rest until medical attention arrives. |
| <u>Skin:</u> | # Skin contact causes redness and pain. | # Remove immediately contaminated clothing. Wash thoroughly the affected area with plenty of cold or lukewarm water and neutral soap, or use a suitable skin cleanser. Do not use solvents or thinners. |
| <u>Eyes:</u> | # Contact with the eyes produces redness, pain and serious burns. Contact with the eyes produces redness, pain, serious burns and loss of vision. | # Remove contact lenses. Rinse eyes copiously by irrigation with plenty of clean, fresh water for at least 15 minutes, holding the eyelids apart, until the irritation is reduced. Call a physician immediately. |
| <u>Ingestion:</u> | # If swallowed, may cause irritation of the mouth, throat and oesophagus. | # If swallowed, seek immediate medical attention. Do not induce vomiting, due to the risk of aspiration. Keep the patient at rest. |

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

The main symptoms and effects are indicated in sections 4.1 and 11.1

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

Notes to physician: Treatment should be directed at the control of symptoms and the clinical condition of the patient.

Antidotes and contraindications: Specific antidote not known.

SECTION 5 : FIRE-FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

Extinguishing powder or CO2. In the case of more important fires, also alcohol resistant foam and water spray/mist.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Fire can produce a dense black smoke. As consequence of combustion or thermal decomposition, hazardous products may be produced: carbon monoxide, carbon dioxide, nitrogen oxides, ammonia. Exposure to combustion or decomposition products may be a hazard to health.

5.3 ADVICE FOR FIREFIGHTERS:

Special protective equipment: Depending on magnitude of fire, heat-proof protective clothing may be required, appropriate independent breathing apparatus, gloves, protective glasses or face masks and boots. If the fire-proof protective equipment is not available or is not being used, combat fire from a sheltered position or from a safe distance. The standard EN469 provides a basic level of protection for chemical incidents.

Other recommendations: Cool with water the tanks, cisterns or containers close to sources of heat or fire. Bear in mind the direction of the wind. Do not allow fire-fighting residue to enter drains, sewers or water courses.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

Eliminate possible sources of ignition and when appropriate, ventilate the area. Do not smoke. Avoid direct contact with this product.

6.2 ENVIRONMENTAL PRECAUTIONS:

Avoid contamination of drains, surface or subterranean water and soil. In the case of large scale spills or when the product contaminates lakes, rivers or sewages, inform the appropriate authorities in accordance with local regulations.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:

Contain and mop up spills with non-combustible absorbent materials (earth, sand, vermiculite, diatomaceous earth, etc..). Clean preferably with a biodegradable detergent. Keep the remains in a closed container.

6.4 REFERENCE TO OTHER SECTIONS:

For contact information in case of emergency, see section 1.
For information on safe handling, see section 7.
For exposure controls and personal protection measures, see section 8.
For waste disposal, follow the recommendations in section 13.



ENDURECEDOR PAVINEUCE EPÓXI
Code: 10101400



SECTION 7 : HANDLING AND STORAGE

- 7.1 **PRECAUTIONS FOR SAFE HANDLING:**
Comply with the existing legislation on health and safety at work.
General recommendations:
Avoid any type of leakage or escape. Keep the container tightly closed.
Recommendations for the prevention of fire and explosion risks:
Due to its flammability, this material should only be used in areas from which all naked lights and other sources of ignition have been excluded and away from other heat or electrical sources. Switch mobile phones off and do not smoke. No tools with a potential for sparks should be used.
- | | | | | |
|--|---|---|------------|---------------|
| - Flash point | : | # | 24* | °C |
| - Autoignition temperature | : | # | 443* | °C |
| - Upper/lower flammability or explosive limits | : | # | 1.2* - 7.9 | % Volume 25°C |
- Recommendations for the prevention of toxicological risks:**
Do not eat, drink or smoke while handling. After handling, wash hands with soap and water. For exposure controls and personal protection measures, see section 8.
Recommendations for the prevention of environmental contamination:
Avoid any spillage in the environment. Pay special attention to the cleaning water. In the case of accidental spillage, follow the instructions indicated in section 6.
- 7.2 **CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:**
Forbid the entry to unauthorized persons. Keep out of reach of children. This product should be stored isolated from heat and electrical sources. Do not smoke in storage area. If possible, avoid direct contact with sunlight. Avoid extreme humidity conditions. In order to avoid leakages, the containers, after use, should be closed carefully and placed in a vertical position. For more information, see section 10.
- | | | | | |
|-------------------------------|---|---|--|--|
| Class of storage | : | # | According to current legislation. | |
| Maximum storage period | : | # | 12 months | |
| Temperature interval | : | | min: 5. °C, max: 35. °C (recommended). | |
- Incompatible materials:**
Keep away from oxidizing agents, from strongly alkaline and strongly acid materials.
- Type of packaging:**
According to current legislation.
- Limit quantity (Seveso III):** Directive 2012/18/EU:
- Named dangerous substances/mixtures: None
 - Hazard categories and lower-/upperthreshold quantities in tonnes (t):
 - Physical hazards: Flammable liquid and vapour (P5c) (5000t/50000t).
 - Health hazards: Not applicable
 - Environmental hazards: Not applicable
 - Other hazards: Not applicable.
 - Threshold quantity for the application of lower-tier requirements: 5000 tons
 - Threshold quantity for the application of upper-tier requirements: 50000 tons
 - Remarks:
- The qualifying quantities set out above relate to each establishment. The quantities to be considered for the application of the relevant Articles are the maximum quantities which are present or are likely to be present at any one time. Dangerous substances present at an establishment only in quantities equal to or less than 2 % of the relevant qualifying quantity shall be ignored for the purposes of calculating the total quantity present, if their location within an establishment is such that it cannot act as an initiator of a major accident elsewhere at that establishment. For more details, see note 4 of Annex I of the Seveso Directive.



ENDURECEDOR PAVINEUCE EPÓXI
Code: 10101400



- 7.3 **SPECIFIC END USES:**
* For the use of this product do not exist particular recommendations apart from that already indicated.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 **CONTROL PARAMETERS:**
If a product contains ingredients with exposure limits, may be necessary a personnel monitoring, work place or biological, 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 EN689, EN14042 and EN482 standard concerning methods for assessing the exposure by inhalation to chemical agents, and exposure to chemical and biological agents. Reference should be also made to national guidance documents for methods for the determination of dangerous substances.

OCCUPATIONAL EXPOSURE LIMIT VALUES (TLV)

| AGCIH 2018 | Year | TLV-TWA | | TLV-STEL | | Remarks |
|----------------------|------|---------|-------------------|----------|-------------------|---------------|
| | | ppm | mg/m ³ | ppm | mg/m ³ | |
| Xylene | 1996 | 100. | 434. | 150. | 651. | A4 |
| Isobutylmethylketone | 1981 | 50. | 205. | 75. | 307. | BEI |
| 1-methoxy-2-propanol | 1976 | 100. | 369. | 150. | 553. | |
| Cyclohexanone | 1990 | 20. | 80. | 50. | 200. | A3, Skin, BEI |
| Ethylbenzene | 2002 | 100. | 434. | 125. | 543. | A3, BEI |

TLV - Threshold Limit Value, TWA - Time Weighted Average, STEL - Short Term Exposure Limit.

Skin - Danger of cutaneous absorption.

A3 - Carcinogenic in animals.

A4 - Non classified as carcinogenic in humans.

BEI - Biological exposure index (biological monitoring).

It is applicable the Directive 90/394/EEC~1999/38/EC, on the protection of the health and safety of workers from the risks related to carcinogenic or mutagenic agents at work.

Dermal (Vd): Means that, in exposures to this substance, the contribution by the cutaneous route, including the mucous membranes and eyes, may result significant for the overall body content if no measures are taken to prevent absorption. There are some chemicals for which dermal absorption, both in liquid and vapour phases, can be very high, and this route of entry may be or equal or greater importance even that inhalation pathway. In these situations, the use of a biological control is essential in order to quantify the overall amount of contaminant absorbed.

BIOLOGICAL LIMIT VALUES:

This preparation contains the following substances that have established a biological limit value:

- Methyl isobutyl ketone (2009): Biological determinant: methyl isobutyl ketone in urine, BEI: 1 mg/l, Sampling time: end of shift (2).
- Cyclohexanone (2003): 1^o Biological determinant: 1,2-cyclohexanediol in urine, BEI: 80 mg/l, Sampling time: end of shift at end of workweek (1), Notation: (Ns) (Sq), with hydrolysis (9). 2^o Biological determinant: cyclohexanol in urine, BEI: 8 mg/l, Sampling time: end of shift (1), Notation: (Ns) (Sq), with hydrolysis (9).
- Ethylbenzene (2013): Biological determinant: sum of mandelic acid and phenylglycolic acid in urine, BEI: 0.15 g/g creatinine Sampling time: end of shift (2), Notation: (Ns).

(1) It means after four or five consecutive days of work with exposure, as soon as possible after the end of the last day, since the biological indicators are eliminated with half lives longer than five hours. These indicators accumulate in the body during the work week, therefore the sampling time is critical in relation to previous exposures.

(2) When the end of the exposition not coincide with the end of the working day, the sample will be taken as soon as possible after the real exposition ceases.

(9) It means that the metabolite has to be determined after hydrolysing the sample.

(Ns) Non-specific. The determinant is non-specific, since it is also observed after exposure to other chemicals.

(Sq) Semi-quantitative. The biological determinant is an indicator of exposure to the chemical, but the quantitative interpretation of the measurement is ambiguous. These determinants should be used as a screening test if a quantitative test is not practical or as a confirmatory test if the quantitative test is not specific and the origin of the determinant is in question.

DERIVED NO-EFFECT LEVEL (DNEL):

Derived no-effect level (DNEL) is a level of exposure that is considered safe, derived from toxicity data according to specific guidances included in REACH. DNEL values may differ from an occupational exposure limit (OEL) for the same chemical. OEL values may come recommended by a particular company, a government regulatory agency or an organization of experts. Although considered protective of health, the OEL values are derived by a process different of REACH.

Derived no-effect level, workers:

- Systemic effects, acute and chronic:

| | DNEL Inhalation mg/m ³ | | DNEL Cutaneous mg/kg bw/d | | DNEL Oral mg/kg bw/d | |
|-------------------------|--------------------------------------|----------|------------------------------|----------|-------------------------|-------|
| Fatty acids, C18-unsatd | - (a) | - (c) | - (a) | - (c) | - (a) | - (c) |
| Isobutylmethylketone | 208. (a) | 83.0 (c) | - (a) | 11.8 (c) | - (a) | - (c) |
| 1-methoxy-2-propanol | - (a) | 369. (c) | - (a) | 50.6 (c) | - (a) | - (c) |
| Cyclohexanone | 80.0 (a) | 40.0 (c) | 4.00 (a) | 4.00 (c) | - (a) | - (c) |

Derived no-effect level, workers:

- Local effects, acute and chronic:

| | DNEL Inhalation mg/m ³ | | DNEL Cutaneous mg/cm ² | | DNEL Eyes mg/cm ² | |
|-------------------------|--------------------------------------|----------|--------------------------------------|---------|---------------------------------|-------|
| Fatty acids, C18-unsatd | - (a) | - (c) | - (a) | - (c) | - (a) | - (c) |
| Isobutylmethylketone | 208. (a) | 83.0 (c) | - (a) | - (c) | - (a) | - (c) |
| 1-methoxy-2-propanol | 554. (a) | - (c) | - (a) | - (c) | - (a) | - (c) |
| Cyclohexanone | 80.0 (a) | 40.0 (c) | s/r (a) | s/r (c) | - (a) | - (c) |

Derived no-effect level, general population:

Not applicable (product for professional or industrial use).

(a) - Acute, short-term exposure, (c) - Chronic, long-term or repeated exposure.

(-) - DNEL not available (without data of registration REACH).

s/r - DNEL not derived (not identified hazard).



ENDURECEDOR PAVINEUCE EPÓXI
Code: 10101400



PREDICTED NO-EFFECT CONCENTRATION (PNEC):

Predicted no-effect concentration, aquatic organisms:

- Fresh water, marine water and intermittent release:

Fatty acids, C18-unsatd

Isobutylmethylketone

1-methoxy-2-propanol

Cyclohexanone

PNEC Fresh water
mg/l

-
0.600
10.0
0.0329

PNEC Marine
mg/l

-
0.0600
1.00
0.00329

PNEC Intermittent
mg/l

-
1.50
100.
0.329

- Wastewater treatment plants (STP) and sediments in fresh-
and marine water:

Fatty acids, C18-unsatd

Isobutylmethylketone

1-methoxy-2-propanol

Cyclohexanone

PNEC STP
mg/l

-
27.5
100.
10.0

PNEC Sediments
mg/kg dw/d

-
8.27
52.3
0.168

PNEC Sediments
mg/kg dw/d

-
0.830
5.20
0.0168

Predicted no-effect concentration, terrestrial organisms:

- Air, soil and effects for predators and humans:

Fatty acids, C18-unsatd

Isobutylmethylketone

1-methoxy-2-propanol

Cyclohexanone

PNEC Air
mg/m3

-
-
-
-

PNEC Soil
mg/kg dw/d

-
1.30
5.49
0.0143

PNEC Oral
mg/kg dw/d

-
-
-
-

(-) - PNEC not available (without data of registration REACH).



ENDURECEDOR PAVINEUCE EP ÓXI
Code: 10101400

8.2 EXPOSURE CONTROLS:ENGINEERING MEASURES:

Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these measures are not sufficient to maintain concentrations of particulates and vapours below the Occupational Exposure Limits, suitable respiratory protection must be worn.

Protection of respiratory system: # Avoid the inhalation of product.

Protection of eyes and face: # Install water taps, sources or eyewash bottles with clean water close to the working area.

Protection of hands and skin: It is recommended to install water taps or sources with clean water close to the working area. Barrier creams may help to protect the exposed areas of the skin. Barrier creams should not be applied once exposure has occurred.

OCCUPATIONAL EXPOSURE CONTROLS: Regulation (EU) No. 2016/425:

As a general measure on prevention and safety in the work place, we recommend the use of a basic personal protection equipment (PPE), with the corresponding marking. For more information on personal protective equipment (storage, use, cleaning maintenance, type and characteristics of the PPE, protection class, marking, category, CEN norm, etc.), you should consult the informative brochures provided by the manufacturers of PPE.

Mask:

Mask for gases and vapours (EN14387). Class 1: low capacity up to 1000 ppm, Class 2: medium capacity up to 5000 ppm, Class 3: high capacity up to 10000 ppm. In order to obtain a suitable protection level, the filter class must be selected depending on the type and concentration of the contaminating agents present, in accordance with the specifications supplied by the filter producers.

Safety goggles:

Safety goggles with suitable lateral protection (EN166). Clean daily and disinfect at regular intervals in accordance with the instructions of the manufacturer.

Face shield:

No.

Gloves:

Gloves resistant against chemicals (EN374). When repeated or prolonged contact with the product is expected, gloves of protection level 5 or higher should be used, with a breakthrough time of >240 min. When short contact with the product is expected, use gloves with a protection level 2 or higher should be used, with a breakthrough time >30 min. The breakthrough time of the selected glove material should be in accordance with the pretended period of use. There are several factors (for example, temperature), they do in practice the period of use of a protective gloves resistant against chemicals is clearly lower than the established standard EN374. Due to the wide variety of circumstances and possibilities, the instructions/specifications provided by the glove supplier should be taken into account. Use the proper technique of removing gloves (without touching glove's outer surface) to avoid contact of the product with the skin. The gloves should be immediately replaced when any sign of degradation is noted.

Boots:

No.

Apron:

No.

Clothing:

Advisable. Put away work clothes under control and separately from the rest. Do not take contaminated clothing home. Wash contaminated work clothes before wearing them again.

Thermal hazards:

Not applicable (the product is handled at room temperature).

ENVIRONMENTAL EXPOSURE CONTROLS:

Avoid any spillage in the environment.

Spills on the soil: Prevent contamination of soil.

Spills in water: Do not allow to escape into drains, sewers or water courses.

- Water Management Act: This product does not contain any substance included in the list of priority substances in the field of water policy under Directive 2000/60/EC~2013/39/EU.

Emissions to the atmosphere: # Not applicable.



ENDURECEDOR PAVINEUCE EPÓXI
Code: 10101400



SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Appearance

- Physical state : # *Liquid.*
- Colour : # *Yellowish colourless.*
- Odour : Characteristic
- Odour threshold : Not available (mixture).

pH-value

- pH : Alkaline

Change of state

- Melting point : Not applicable (mixture).
- Initial boiling point : # *115.9* °C at 760 mmHg*

Density

- Vapour density : # *3.58* at 20°C 1 atm.* Relative air
- Relative density : # *0.935 ± 0.05 at 20/4°C* Relative water
- Apparent density : # *0.935 ± 0.05 g/cc at 20°C*

Stability

- Decomposition temperature : Not available (technical impossibility to obtain the data).

Viscosity:

- Kinematic viscosity : Not applicable

Volatility:

- Evaporation rate : # *74.7* nBuAc=100 25°C* Relative
- Vapour pressure : # *6.7* mmHg at 20°C*
- Vapour pressure : # *4.5* kPa at 50°C*

Solubility(ies)

- Solubility in water : # *Not miscible*
- Liposolubility : # *Not applicable*
- Partition coefficient: n-octanol/water : Not applicable (mixture).

Flammability:

- Flash point : # *24* °C*
- Upper/lower flammability or explosive limits : # *1.2* - 7.9 % Volume 25°C*
- Autoignition temperature : # *443* °C*

Explosive properties:

Not available.

Oxidizing properties:

Not classified as oxidizing product.

*Estimated values based on the substances composing the mixture.

9.2 OTHER INFORMATION:

- Solids : # *49.8 % Weight*

The values indicated do not always coincide with product specifications. The data for the product specifications can be found in the corresponding technical data sheet. For additional information concerning physical and chemical properties related to safety and environment, see sections 7 and 12.

SECTION 10 : STABILITY AND REACTIVITY

10.1 REACTIVITY:

Corrosivity to metals: It is not corrosive to metals.

Pyrophorical properties: It is not pyrophoric.

10.2 CHEMICAL STABILITY:

Stable under recommended storage and handling conditions.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS:

Possible dangerous reaction with reducing agents, oxidizing agents, acids, alkalis.

10.4 CONDITIONS TO AVOID:

Heat: Keep away from sources of heat.

Light: If possible, avoid direct contact with sunlight.

Air: The product is not affected by exposure to air, but should not be left the containers open.

Humidity: Avoid extreme humidity conditions.

Pressure: Not relevant.

Shock: The product is not sensitive to shocks, but as a recommendation of a general nature should be avoided bumps and rough handling to avoid dents and breakage of packaging, especially when the product is handled in large quantities, and during loading and download operations.

10.5 INCOMPATIBLE MATERIALS:

Keep away from oxidizing agents, from strongly alkaline and strongly acid materials.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS:

As consequence of thermal decomposition, hazardous products may be produced: nitrogen oxides, ammonia.



ENDURECEDOR PAVINEUCE EPÓXI
Code: 10101400



SECTION 11 : TOXICOLOGICAL INFORMATION

No experimental toxicological data on the preparation is available. The toxicological classification for this mixture has been carried out by using the conventional calculation method of the Regulation (EU) No. 1272/2008~2018/1480 (CLP).

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

ACUTE TOXICITY:Dose and lethal concentrations

for individual ingredients :

Fatty acids/isophthalic acid/TEIA aduct

Xylene

Isobutylmethylketone

1-methoxy-2-propanol

Cyclohexanone

Ethylbenzene

LD50 (OECD 401)

mg/kg bw oral

> 2000. Rat

4300. Rat

2080. Rat

4016. Rat

1534. Rat

3500. Rat

LD50 (OECD 402)

mg/kg bw cutaneous

> 2000. Rabbit

1700. Rabbit

> 20000. Rabbit

13000. Rabbit

948. Rabbit

15400. Rabbit

LC50 (OECD 403)

mg/m3-4h inhalation

> 22080. Rat

> 8200. Rat

> 54600. Rat

> 6200. Rat

> 17400. Rat

Estimates of acute toxicity (ATE)

for individual ingredients :

Fatty acids/isophthalic acid/TEIA aduct

Xylene

Isobutylmethylketone

Cyclohexanone

Ethylbenzene

ATE

mg/kg bw oral

-

-

-

1534.

-

ATE

mg/kg bw cutaneous

-

1700.

-

1100.*

-

ATE

mg/m3-4h inhalation

-

11000.*

11000.*

11000.*

17400.

Vapours

Vapours

Vapours

Vapours

(*) - Point estimates of acute toxicity corresponding to the classification category (see GHS/CLP Table 3.1.2). These values are designed to be used in the calculation of the ATE for classification of a mixture based on its components and do not represent test results.

(-) - The components that are assumed to have no acute toxicity at the upper threshold of category 4 for the corresponding exposure route are ignored.

No observed adverse effect level

Not available

Lowest observed adverse effect level

Not available

INFORMATION ON LIKELY ROUTES OF EXPOSURE: Acute toxicity:

| Routes of exposure | Acute toxicity | Cat. | Main effects, acute and/or delayed | Criteria |
|--------------------------------------|---------------------|------|--|------------------|
| <u>Inhalation:</u> Not classified | ATE > 20000 mg/m3 | - | Not classified as a product with acute toxicity if inhaled (based on available data, the classification criteria are not met). | GHS/CLP 3.1.3.6. |
| <u>Skin:</u> Not classified | ATE > 2000 mg/kg bw | - | Not classified as a product with acute toxicity in contact with skin (based on available data, the classification criteria are not met). | GHS/CLP 3.1.3.6. |
| <u>Eyes:</u> Not classified | Not available | - | Not classified as a product with acute toxicity by eye contact (lack of data). | GHS/CLP 1.2.5. |
| <u>Ingestion:</u> Not classified | ATE > 2000 mg/kg bw | - | Not classified as a product with acute toxicity if swallowed (based on available data, the classification criteria are not met). | GHS/CLP 3.1.3.6. |

GHS/CLP 3.1.3.6: Classification of mixtures based on ingredients of the mixture (additivity formula).

CORROSION / IRRITATION / SENSITISATION:

| Danger class | Target organs | Cat. | Main effects, acute and/or delayed | Criteria |
|--|---------------|-------|---|----------------------------|
| <u>Respiratory corrosion/irritation:</u> Not classified | - | - | Not classified as a product corrosive or irritant by inhalation (based on available data, the classification criteria are not met). | GHS/CLP 1.2.6. 3.8.3.4. |
| <u>Skin corrosion/irritation:</u> | Skin | Cat.2 | # IRRITANT: Causes skin irritation. | GHS/CLP 3.2.3.3. |
| <u>Serious eye damage/irritation:</u> | Eyes | Cat.1 | # DAMAGE: Causes serious eye damage. | GHS/CLP 3.3.3.3. |
| <u>Respiratory sensitisation:</u> Not classified | - | - | Not classified as a product sensitising by inhalation (based on available data, the classification criteria are not met). | GHS/CLP 3.4.3.3. |
| <u>Skin sensitisation:</u> Not classified | - | - | Not classified as a product sensitising by skin contact (based on available data, the classification criteria are not met). | GHS/CLP 3.4.3.3. |

GHS/CLP 3.2.3.3: Classification of the mixture when data are available for all components or only for some components.

GHS/CLP 3.3.3.3: Classification of the mixture when data are available for all components or only for some components.

GHS/CLP 3.4.3.3: Classification of the mixture when data are available for all components or only for some components.




ENDURECEDOR PAVINEUCE EP ÓXI
Code: 10101400

ASPIRATION HAZARD:

| Danger class | Target organs | Cat. | Main effects, acute and/or delayed | Criteria |
|---|---------------|------|---|-------------------|
| <u>Aspiration hazard:</u> Not classified | - | - | Not classified as a product hazardous by aspiration (based on available data, the classification criteria are not met). | GHS/CLP 3.10.3.3. |

GHS/CLP 3.10.3.3: Classification of the mixture when data are available for all components or only for some components.

SPECIFIC TARGET ORGANS TOXICITY (STOT): Single exposure (SE) and/or Repeated exposure (RE):

| Effects | SE/RE | Target organs | Cat. | Main effects, acute and/or delayed | Criteria |
|-------------------|-------|---|------|---|----------------|
| <u>Cutaneous:</u> | RE | Skin  | - | # DEFATTENING: Repeated exposure may cause skin dryness or cracking. | GHS/CLP 1.2.4. |

CMR EFFECTS:Carcinogenic effects:

This preparation contains the following ingredients which can cause cancer:
Aromatic hydrocarbons C8 (redistillate) (cat.1B)

Genotoxicity:

This preparation contains the following ingredients which can be mutagenic:
Aromatic hydrocarbons C8 (redistillate) (cat.1B)

Toxicity for reproduction: Does not harm fertility. Does not harm the unborn child.

Effects via lactation: Not classified as a hazardous product for children breast-fed.

DELAYED AND IMMEDIATE EFFECTS AS WELL AS CHRONIC EFFECTS FROM SHORT AND LONG-TERM EXPOSURE:

Routes of exposure: **# Not available.**

Short-term exposure: **# Harmful by inhalation. Harmful in contact with skin. May irritate the eyes and skin. Irritating to eyes. Irritating to skin.**

Long-term or repeated exposure: **# Not available.**

INTERACTIVE EFFECTS:

Not available.

INFORMATION ABOUT TOXICOKINETICS, METABOLISM AND DISTRIBUTION:Dermal absorption:

This preparation contains the following substances for which dermal absorption can be very high: Cyclohexanone.

Basic toxicokinetics: Not available.

ADDITIONAL INFORMATION:

Not available.

SECTION 12 : ECOLOGICAL INFORMATION

No experimental ecotoxicological data on the preparation as such is available. The ecotoxicological classification for this mixture has been carried out by using the conventional calculation method of the Regulation (EU) No. 1272/2008~2018/1480 (CLP).

12.1

TOXICITY:Acute toxicity in aquatic environment for individual ingredients :

| | <u>LC50 (OECD 203)</u> mg/l-96hours | <u>EC50 (OECD 202)</u> mg/l-48hours | <u>EC50 (OECD 201)</u> mg/l-72hours |
|----------------------|--|--|--|
| Xylene | 135. Fishes | > 16. Daphnia | > 2.2 Algae |
| Isobutylmethylketone | 179. Fishes | 200. Daphnia | 400. Algae |
| 1-methoxy-2-propanol | 20800. Fishes | 23300. Daphnia | > 1000. Algae |
| Cyclohexanone | 527. Fishes | 800. Daphnia | > 33. Algae |
| Ethylbenzene | > 12. Fishes | > 1.8 Daphnia | > 33. Algae |

No observed effect concentration

| | <u>NOEC (OECD 210)</u> mg/l-28days | <u>NOEC (OECD 211)</u> mg/l-21days | <u>NOEC (OECD 201)</u> mg/l-72hours |
|----------------------|---------------------------------------|---------------------------------------|--|
| Isobutylmethylketone | | 30. Daphnia | |

Lowest observed effect concentration

Not available

ASSESSMENT OF AQUATIC TOXICITY:

| Aquatic toxicity | Cat. | Main hazards to the aquatic environment | Criteria |
|--|-------|--|----------------------|
| <u>Acute aquatic toxicity:</u> Not classified | - | # Not classified as a hazardous product with acute toxicity to aquatic life (based on available data, the classification criteria are not met). | GHS/CLP 4.1.3.5.5.3. |
| <u>Chronic aquatic toxicity:</u> | Cat.3 | # HARMFUL: Harmful to aquatic life with long lasting effects. | GHS/CLP 4.1.3.5.5.4. |

CLP 4.1.3.5.5.3: Classification of a mixture for acute hazards, based on summation of classified components.

CLP 4.1.3.5.5.4: Classification of a mixture for chronic (long term) hazards, based on summation of classified components.



ENDURECEDOR PAVINEUCE EP ÓXI
Code: 10101400



12.2 PERSISTENCE AND DEGRADABILITY:

Not available.

Aerobic biodegradation
for individual ingredients :

Fatty acids/isophthalic acid/TETA aduct
Xylene
Isobutylmethylketone
1-methoxy-2-propanol
Cyclohexanone
Ethylbenzene

DQO
mgO₂/g

2620.
2716.
1953.
2608.
3164.

%DBO/DQO
5 days 14 days 28 days

~ 27. ~ 96.
~ 30. ~ 68. ~ 79.

Biodegradability

Not easy
Easy
Easy
Easy
Easy
Easy

Note: Biodegradability data correspond to an average of data from various bibliographic sources.

12.3 BIOACCUMULATIVE POTENTIAL:

Not available.

Bioaccumulation
for individual ingredients :

Fatty acids/isophthalic acid/TETA aduct
Xylene
Isobutylmethylketone
1-methoxy-2-propanol
Cyclohexanone
Ethylbenzene

log Pow

2.95
1.19
-0.490
0.810
3.15

BCF
l/kg

29. (calculated)
3.5 (calculated)
3.2 (calculated)
2.4 (calculated)
56. (calculated)

Potential

Not available
Not available
Not available
Not available
Not available

12.4 MOBILITY IN SOIL:

Not available.

Mobility
for individual ingredients :

Fatty acids/isophthalic acid/TETA aduct
Xylene
Isobutylmethylketone
1-methoxy-2-propanol
Cyclohexanone
Ethylbenzene

log Koc

1.70
1.80
0.150
1.18
2.23

Constant of Henry
Pa·m³/mol 20°C

660. (calculated)
0.093 (calculated)
798. (calculated)

Potential

Not available
Not available
Not available
Not available
Not available

12.5 RESULTS OF PBT AND VPvB ASSESSMENT: Annex XIII of Regulation (EC) no. 1907/2006:

Does not contain substances that fulfil the PBT/vPvB criteria.

12.6 OTHER ADVERSE EFFECTS:

Ozone depletion potential: Not available.

Photochemical ozone creation potential: Not available.

Earth global warming potential: In case of fire or incineration liberates CO₂.

Endocrine disrupting potential: Not available.

SECTION 13 : DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS: Directive 2008/98/EC~Regulation (EU) no. 1357/2014:

Take all necessary measures to prevent the production of waste whenever possible. Analyse possible methods for revaluation or recycling. Do not discharge into drains or the environment, dispose at an authorised waste collection point. Waste should be handled and disposed in accordance with current local and national regulations. For exposure controls and personal protection measures, see section 8.

Disposal of empty containers: Directive 94/62/EC~2015/720/EU, Decision 2000/532/EC~2014/955/EU:

Emptied containers and packaging should be disposed in accordance with currently local and national regulations. The classification of packaging as hazardous waste will depend on the degree of emptying of the same, being the holder of the residue responsible for their classification, in accordance with Chapter 15 01 of Decision 2000/532/EC, and forwarding to the appropriate final destination. With contaminated containers and packaging, adopt the same measures as for the product in itself.

Procedures for neutralising or destroying the product:

Controlled incineration in special facilities for chemical waste, in accordance with local regulations.



ENDURECEDOR PAVINEUCE EP ÓXI
Code: 10101400



SECTION 14 : TRANSPORT INFORMATION

14.1 UN NUMBER: 1263

14.2 UN PROPER SHIPPING NAME:
PAINT

14.3 TRANSPORT HAZARD CLASS(ES):

Transport by road (ADR 2019) and
Transport by rail (RID 2019):

- Class: 3
- Packing group: III
- Classification code: F1
- Tunnel restriction code: (D/E)
- Transport category: 3, max. ADR 1.1.3.6. 1000 L
- Limited quantities: 5 L (see total exemptions ADR 3.4)
- Transport document: Consignment paper.
- Instructions in writing: ADR 5.4.3.4



Transport by sea (IMDG 38-16):

- Class: 3
- Packing group: III
- Emergency Sheet (EmS): F-E,S_E
- First Aid Guide (MFAG): 310,313
- Marine pollutant: No.
- Transport document: Shipping Bill of lading.



Transport by air (ICAO/IATA 2018):

- Class: 3
- Packing group: III
- Transport document: Air Bill of lading.



Transport by inland waterways (ADN):
Not available.

14.4 PACKING GROUP:
See section 14.3

14.5 ENVIRONMENTAL HAZARDS:
Not applicable.

14.6 SPECIAL PRECAUTIONS FOR USER:
Ensure that persons transporting the product know what to do in case of accident or spill. Always transport in closed containers that are upright and secure. Ensure adequate ventilation.

14.7 TRANSPORT IN BULK ACCORDING TO ANNEX I OF MARPOL 73/78 AND THE IBC CODE:
Not applicable.

SECTION 15 : REGULATORY INFORMATION

15.1 EU SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC:
The regulations applicable to this product generally are listed throughout this Safety Data Sheet.

Restrictions on manufacture, placing on market and use: See section 1.2

Tactile warning of danger: Not applicable (the classification criteria are not met).

Child safety protection: Not applicable (the classification criteria are not met).

VOC information on the label:

Contains VOC max. 0.1 g/l - The limit value 2004/42/CE-IIA cat. j) for the product ready for use is VOC max. 500. g/l (2010).

OTHER REGULATIONS:

Responsabilidade ambiental:

A utilização deste produto em Portugal fica sujeita ao regime de responsabilidade ambiental previsto no DL.147/2008.

Control of the risks inherent in major accidents (Seveso III): See section 7.2

Other local legislations:

The receiver should verify the possible existence of local regulations applicable to the chemical.

15.2 CHEMICAL SAFETY ASSESSMENT:
A chemical safety assessment has not been carried out for this mixture.



ENDURECEDOR PAVINEUCE EPÓXI
Code: 10101400



SECTION 16 : OTHER INFORMATION

TEXT OF THE PHRASES AND NOTES REFERENCED IN SECTIONS 2 AND/OR 3:

Hazard statements according the Regulation (EU) No. 1272/2008~2018/1480 (CLP), Annex III:

H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H312 Harmful in contact with skin. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H412 Harmful to aquatic life with long lasting effects. EUH066 Repeated exposure may cause skin dryness or cracking. H340 May cause genetic defects. H350 May cause cancer. H373i May cause damage to organs through prolonged or repeated exposure if inhaled. H373iE May cause damage to hearing organs through prolonged or repeated exposure if inhaled.

EVALUATION OF THE INFORMATION ON THE DANGER OF MIXTURES: See sections 9.1, 11.1 and 12.1.

ADVICES ON ANY TRAINING APPROPRIATE FOR WORKERS:

It is recommended for all staff that will handle this product to carry out a basic training in occupational risk and prevention, in order to provide understanding and interpretation of Safety Data Sheets and labelling of products as well.

MAIN LITERATURE REFERENCES AND SOURCES FOR DATA:

- European Chemicals Agency: ECHA, <http://echa.europa.eu/>
- Access to European Union Law, <http://eur-lex.europa.eu/>
- Industrial Solvents Handbook, Ibert Mellan (Noyes Data Co., 1970).
- Threshold Limit Values, (AGCIH, 2017).
- European agreement on the international carriage of dangerous goods by road, (ADR 2019).
- International Maritime Dangerous Goods Code IMDG including Amendment 38-16 (IMO, 2016).

ABBREVIATIONS AND ACRONYMS:

List of abbreviations and acronyms that can be used (but not necessarily used) in this Safety Data Sheet:

- REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals of the United Nations.
- CLP: European regulation on Classification, Labelling and Packaging of substances and chemical mixtures.
- 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).
- UVCB: Substances of Unknown or Variable composition, complex reaction products or biological materials.
- SVHC: Substances of Very High Concern.
- PBT: Persistent, bioaccumulable and toxic substances.
- vPvB: Very persistent and very bioaccumulable substances.
- DNEL: Derived No-Effect Level (REACH).
- PNEC: Predicted No-Effect Concentration (REACH).
- LD50: Lethal dose, 50 percent.
- LC50: Lethal concentration, 50 percent.
- UN: United Nations Organisation.
- ADR: European agreement concerning the international carriage of dangerous goods by road.
- RID: Regulations concerning the international transport of dangerous goods by rail.
- IMDG: International Maritime code for Dangerous Goods.
- IATA: International Air Transport Association.
- ICAO: International Civil Aviation Organization.

SAFETY DATA SHEET REGULATIONS:

Safety Data Sheet in accordance with Article 31 of Regulation (EC) No. 1907/2006 (REACH) and Annex of Regulation (EU) No. 2015/830.

HISTORIC:

Version: 5 Revision:
07/02/2019

Version: 6 21/01/2020

Changes since previous Safety Data Sheet:

Legislative, contextual, numerical, methodological and normative changes since the previous version of the present Safety Data Sheet are identified by a red-italic hash (#).

The information of this Safety Data Sheet, is based on the present state of knowledge and on current UE and national laws, as the users' working conditions are beyond our knowledge and control. The product is not to be used for other purposes than those specified, without first obtaining written handling instruction. It is always the responsibility of the user to take all necessary steps in order to fulfil the demand laid down in the local rules and legislation. The information in this Safety Data Sheet is meant as a description of the safety requirements of the product and it is not to be considered as a guarantee of the product's properties.