





Safety Data Sheet dated 18/4/2019, version 1 Conforms to Regulation (EC) No. 830/2015

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

### 1.1. Product identifier

Trade name: MARCEL'S ECO RSPOMB LAVENDER

Trade code: 6098

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

Household WC detergent

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

RE.LE.VI. S.p.A. - Via Postumia n.1- 46040 RODIGO Mantova - Italia Phone +39.0376.684011 - FAX +39.0376.658076 www.relevi.it - info@relevi.it

Competent person responsible for the safety data sheet: sds@relevi.it

#### 1.4. Emergency telephone number

Company +39 0376 780632 (24/24h - 7/7d - Italian/English)

## **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP):

🕩 Warning, Skin Irrit. 2, Causes skin irritation.

Warning, Eye Irrit. 2, Causes serious eye irritation.
 Aquatic Chronic 3, Harmful to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

## 2.2. Label elements

Hazard pictograms:



Warning

Hazard statements:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P302+P352 IF ON SKIN: Wash with plenty of water and soap.

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

P332+P313 If skin irritation occurs: Get medical advice/attention.

P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

None

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Composition - Reg (EC) n ° 648/2004

Contains:

anionic surfactants

15 % or over but less than 30 % less than 5 %

non-ionic surfactants

The product also contains:

Perfumes

Allergens:

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Preservatives:

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

### 2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards

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

### 3.1. Substances

N.A.

## 3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number		Classification
>= 17.5% - < 20%	Sulphuric acid, mono-C12- 18-alkyl esters, sodium salts	CAS: EC: REACH No.:	68955-19-1 273-257-1 01-2119490225- 39	<ul> <li>◆ 3.2/2 Skin Irrit. 2 H315</li> <li>4.1/C3 Aquatic Chronic 3 H412</li> <li>◆ 3.3/1 Eye Dam. 1 H318</li> </ul>
>= 7.5% - < 10%	Sulfuric acid, mono-C12-14- alkyl esters, sodium salts	CAS: EC: REACH No.:	85586-07-8 287-809-4 01-2119489463- 28	<ul> <li>♦ 3.1/4/Oral Acute Tox. 4 H302</li> <li>4.1/C3 Aquatic Chronic 3 H412</li> <li>♦ 3.2/2 Skin Irrit. 2 H315</li> <li>♦ 3.3/1 Eye Dam. 1 H318</li> </ul>
>= 2.5% - < 5%	Amides, C12-18 and C18- unsatd., N-(hydroxyethyl)	CAS: EC: REACH No.:	90622-77-8 292-481-0 01-2119489413- 33	<ul> <li>         ↑ 3.2/2 Skin Irrit. 2 H315         </li> <li>         ↑ 3.3/1 Eye Dam. 1 H318         </li> <li>         ↓ 4.1/C2 Aquatic Chronic 2 H411     </li> </ul>
>= 1% - < 2.5%	Alcohols, C12-14, ethoxylated, sulfates, sodium salts (> 1 < 2.5 mol EO)	CAS: EC: REACH No.:	68891-38-3 500-234-8 01-2119488639- 16	<ul> <li>◆ 3.2/2 Skin Irrit. 2 H315</li> <li>4.1/C3 Aquatic Chronic 3 H412</li> <li>◆ 3.3/1 Eye Dam. 1 H318</li> </ul>
< 0.1%	heptan-2-one; methyl amyl ketone	Index number: CAS: EC:	606-024-00-3 110-43-0 203-767-1	2.6/3 Flam. Liq. 3 H226 3.1/4/Inhal Acute Tox. 4 H332 3.1/4/Oral Acute Tox. 4 H302 3.8/3 STOT SE 3 H336

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

4.1. Description of first aid measures





In case of skin contact:

Immediately take off all contaminated clothing.

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

None

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

## **SECTION 5: Firefighting measures**

### 5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO2).

Extinguishing media which must not be used for safety reasons:

None in particular.

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

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

## 5.3. Advice for firefighters

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

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

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

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

## 6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

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

Wash with plenty of water.

#### 6.4. Reference to other sections





See also section 8 and 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contamined clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

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

None in particular

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

## 7.3. Specific end use(s)

None in particular

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

## 8.1. Control parameters

heptan-2-one; methyl amyl ketone - CAS: 110-43-0

EU - TWA(8h): 238 mg/m3, 50 ppm - STEL: 475 mg/m3, 100 ppm - Notes: Skin

ACGIH - TWA(8h): 50 ppm - Notes: Eye and skin irr

#### **DNEL Exposure Limit Values**

Sulphuric acid, mono-C12-18-alkyl esters, sodium salts - CAS: 68955-19-1

Worker Professional: 4060 mg/kg - Consumer: 2440 mg/kg - Exposure: Human Dermal - Frequency: Long Term,

systemic effects

Worker Professional: 285 mg/m<sup>3</sup> - Consumer: 85 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long

Term, systemic effects

Consumer: 24 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

Sulfuric acid, mono-C12-14-alkyl esters, sodium salts - CAS: 85586-07-8

Consumer: 24 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

Worker Industry: 285 mg/m^3 - Consumer: 85 mg/m^3 - Exposure: Human Inhalation - Frequency: Long Term,

systemic effects

Worker Industry: 4060 mg/kg - Consumer: 2440 mg/kg - Exposure: Human Dermal - Frequency: Long Term,

systemic effects

Amides, C12-18 and C18-unsatd., N-(hydroxyethyl) - CAS: 90622-77-8

Worker Industry: 4.16 mg/kg - Consumer: 2.5 mg/kg - Exposure: Human Dermal - Frequency: Long Term,

systemic effects

Worker Industry: 73.4 mg/m<sup>3</sup> - Consumer: 21.73 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long

Term, systemic effects

Consumer: 6.25 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

Alcohols, C12-14, ethoxylated, sulfates, sodium salts (> 1 < 2.5 mol EO) - CAS: 68891-38-3

Worker Industry: 2750 mg/kg - Consumer: 1650 mg/kg - Exposure: Human Dermal - Frequency: Long Term,

systemic effects

Worker Industry: 175 mg/m<sup>3</sup> - Consumer: 52 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term,

systemic effects

Consumer: 15 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

Sulphuric acid, mono-C12-18-alkyl esters, sodium salts - CAS: 68955-19-1

Target: Fresh Water - Value: 0.098 mg/l

Target: Marine water - Value: 0.0098 mg/l Target: wastewater treatment plant - Value: 6.8 mg/kg

Target: Marine water sediments - Value: 0.345 mg/kg

Target: Freshwater sediments - Value: 3.45 mg/kg

Sulfuric acid, mono-C12-14-alkyl esters, sodium salts - CAS: 85586-07-8





Target: Soil (agricultural) - Value: 0.846 mg/kg

Target: Marine water sediments - Value: 0.461 mg/l

Target: Fresh Water - Value: 0.131 mg/l Target: Marine water - Value: 0.013 mg/l

Target: Marine Water - Value: 0.013 high Target: Freshwater sediments - Value: 4.61 mg/kg Amides, C12-18 and C18-unsatd., N-(hydroxyethyl) - CAS: 90622-77-8 Target: Marine water - Value: 0.0007 mg/l Target: Fresh Water - Value: 0.007 mg/l

Target: Marine water sediments - Value: 0.12 mg/kg Target: Freshwater sediments - Value: 1.201 mg/kg

Target: Soil - Value: 0.2354 mg/kg

Alcohols, C12-14, ethoxylated, sulfates, sodium salts (> 1 < 2.5 mol EO) - CAS: 68891-38-3

Target: Freshwater - Value: 0.024 mg/l
Target: Marine water - Value: 0.024 mg/l
Target: Freshwater sediments - Value: 0.9168 mg/kg Target: Marine water sediments - Value: 0.09168 mg/kg

Target: Soil (agricultural) - Value: 7.5 mg/kg

### 8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

No special precaution must be adopted for normal use.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

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

## 9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance:	Solid		
Colour:	White		
Odour:	Lavender		
Odour threshold:	Not available		
pH (sol. 1%):	7.0± 2.0		
Melting point / freezing point:	Not available		
Initial boiling point and boiling range:	Not available		
Flash point:	Not available		
Evaporation rate:	Not available		
Solid/gas flammability:	Not flammable		





Upper/lower flammability or explosive limits:	Not available	 
Vapour pressure:	Not available	 
Vapour density:	Not available	 
Relative density:	Not available	 
Solubility in water:	Soluble	 
Solubility in oil:	Not available	 
Partition coefficient (n-octanol/ water):	Not available	 
Auto-ignition temperature:	Not available	 
Decomposition temperature:	Not available	 
Viscosity:	Not available	 
Explosive properties:	Not available	 
Oxidizing properties:	Not available	 

## 9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	Not available		
Fat Solubility:	Not available		
Conductivity:	Not available		
Substance Groups relevant properties	N.A.		

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

## 10.1. Reactivity

Stable under normal conditions

## 10.2. Chemical stability

Stable under normal conditions

## 10.3. Possibility of hazardous reactions

None

## 10.4. Conditions to avoid

Stable under normal conditions.

## 10.5. Incompatible materials

None in particular.

## 10.6. Hazardous decomposition products

None.

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SECTION 11: Toxicological information
        11.1. Information on toxicological effects
        Toxicological information of the product:
                 MARCEL'S ECO RSPOMB LAVENDER
                 a) acute toxicity
                         Not classified
                         Based on available data, the classification criteria are not met
                 b) skin corrosion/irritation
                         The product is classified: Skin Irrit. 2 H315
                 c) serious eye damage/irritation
                         The product is classified: Eye Irrit. 2 H319
                 d) respiratory or skin sensitisation
                         Not classified
                         Based on available data, the classification criteria are not met
                 e) germ cell mutagenicity
                         Not classified
                         Based on available data, the classification criteria are not met
                 f) carcinogenicity
                         Not classified
                         Based on available data, the classification criteria are not met
                 g) reproductive toxicity
                         Not classified
                         Based on available data, the classification criteria are not met
                 h) STOT-single exposure
                         Not classified
                         Based on available data, the classification criteria are not met
                 i) STOT-repeated exposure
                         Not classified
                         Based on available data, the classification criteria are not met
                j) aspiration hazard
                         Not classified
                         Based on available data, the classification criteria are not met
        Toxicological information of the main substances found in the product:
                 Sulphuric acid, mono-C12-18-alkyl esters, sodium salts - CAS: 68955-19-1
                a) acute toxicity:
Test: LC50 - Route: Inhalation Mist - Species: Mouse > 5 mg/l - Duration: 4h
                         Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg
                         Test: LD50 - Route: Oral - Species: Rat = 4010 mg/kg
                 Sulfuric acid, mono-C12-14-alkyl esters, sodium salts - CAS: 85586-07-8
                 a) acute toxicity:
                         Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg
                         Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg
                         Test: LD50 - Route: Oral - Species: Rat = 1063 mg/kg
                 Amides, C12-18 and C18-unsatd., N-(hydroxyethyl) - CAS: 90622-77-8
                 a) acute toxicity:
                         Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg
                 Alcohols, C12-14, ethoxylated, sulfates, sodium salts (> 1 < 2.5 mol EO) - CAS: 68891-38-3
                 a) acute toxicity:
                         Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg
                         Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg
                 heptan-2-one; methyl amyl ketone - CAS: 110-43-0
                 a) acute toxicity:
                         Test: LD50 - Route: Oral - Species: Rat = 1670 mg/kg
Test: LD50 - Route: Oral - Species: Mouse = 730 mg/kg
```

## **SECTION 12: Ecological information**

Adopt good working practices, so that the product is not released into the environment.

## 12.1. Toxicity

MARCEL'S ECO RSPOMB LAVENDER

The product is classified: Aquatic Chronic 3 - H412

Sulphuric acid, mono-C12-18-alkyl esters, sodium salts - CAS: 68955-19-1

a) Aquatic acute toxicity:





```
Endpoint: EC50 - Species: Algae = 20 mg/l - Duration h: 72
                   Endpoint: EC50 - Species: Daphnia = 2.8 mg/l - Duration h: 48
                   Endpoint: LC50 - Species: Fish = 1.3 mg/l - Duration h: 96
          b) Aquatic chronic toxicity:
                   Endpoint: NOEC - Species: Daphnia 0.419 mg/l - Duration h: 168
                   Endpoint: NOEC - Species: Fish 0.23 mg/l - Duration h: 816
Endpoint: NOEC - Species: Algae 3 mg/l - Duration h: 72
Sulfuric acid, mono-C12-14-alkyl esters, sodium salts - CAS: 85586-07-8
          a) Aquatic acute toxicity:
                   Endpoint: EC50 - Species: Daphnia = 1.37 mg/l - Duration h: 48
                   Endpoint: LC50 - Species: Fish = 3.6 mg/l - Duration h: 96
                   Endpoint: EC50 - Species: Algae > 20 mg/l - Duration h: 72
         b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Daphnia = 0.58 mg/l - Duration h: 168

Endpoint: NOEC - Species: Fish > 0.11 mg/l - Duration h: 816

Endpoint: NOEC - Species: Algae = 0.6 mg/l - Duration h: 72
Amides, C12-18 and C18-unsatd., N-(hydroxyethyl) - CAS: 90622-77-8
         a) Aquatic acute toxicity:
                   Endpoint: EC50 - Species: Algae 1-10 mg/l
                   Endpoint: EC50 - Species: Daphnia 10-100 mg/l
Endpoint: LC50 - Species: Fish 10-100 mg/l
         b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Fish 0.1-1 mg/l
Endpoint: NOEC - Species: Daphnia 0.01-0.1 mg/l
         c) Bacteria toxicity
                   Endpoint: EC50 > 100 mg/l
Alcohols, C12-14, ethoxylated, sulfates, sodium salts (> 1 < 2.5 mol EO) - CAS: 68891-38-3
         a) Aquatic acute toxicity:
                   Endpoint: LC50 - Species: Fish 10-100 mg/l
Endpoint: EC50 - Species: Daphnia 10-100 mg/l
Endpoint: EC50 - Species: Algae 10-100 mg/l
          b) Aquatic chronic toxicity:
                   Endpoint: NOEC - Species: Fish 1-10 mg/l
Endpoint: NOEC - Species: Daphnia 0.1-1 mg/l
12.2. Persistence and degradability
         Sulphuric acid, mono-C12-18-alkyl esters, sodium salts - CAS: 68955-19-1
Biodegradability: Readily biodegradable - Test: BIODG08 - Duration: 28GG - %: 93
          Amides, C12-18 and C18-unsatd., N-(hydroxyethyl) - CAS: 90622-77-8
                   Biodegradability: Readily biodegradable
          Alcohols, C12-14, ethoxylated, sulfates, sodium salts (> 1 < 2.5 mol EO) - CAS: 68891-38-3
                   Biodegradability: Readily biodegradable
          The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in
          Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent
          authorities of the Member States and will be made available to them, at their direct request or at the request of a
          detergent manufacturer.
```

## 12.3. Bioaccumulative potential

```
Sulphuric acid, mono-C12-18-alkyl esters, sodium salts - CAS: 68955-19-1
Bioaccumulation: .2 - Test: BIOAC03 -2.1
Amides, C12-18 and C18-unsatd., N-(hydroxyethyl) - CAS: 90622-77-8
Bioaccumulation: Not bioaccumulative
Alcohols, C12-14, ethoxylated, sulfates, sodium salts (> 1 < 2.5 mol EO) - CAS: 68891-38-3
Bioaccumulation: Not bioaccumulative
```

## 12.4. Mobility in soil

N.A.

### 12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

## 12.6. Other adverse effects

None





## 13. DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

## **SECTION 14: Transport information**

#### 14.1. UN number

Not classified as dangerous in the meaning of transport regulations.

### 14.2. UN proper shipping name

## 14.3. Transport hazard class(es)

## 14.4. Packing group

### 14.5. Environmental hazards

ADR-Enviromental Pollutant: No IMDG-Marine pollutant: No

#### 14.6. Special precautions for user

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

## **SECTION 15: Regulatory information**

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

Dir. 98/24/EC (Risks related to chemical agents at work) Dir. 2000/39/EC (Occupational exposure limit values) Regulation (EC) n. 1907/2006 (REACH) Regulation (EC) n. 1272/2008 (CLP) Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013 Regulation (EU) 2015/830 Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP) Regulation (EU) n. 487/2013 (ATP 4 CLP) Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP) Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP) Regulation (EU) n. 2016/1179 (ATP 9 CLP) Regulation (EU) n. 2017/776 (ATP 10 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 40

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions:

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents). Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1



None

## 15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for the mixture. No Chemical Safety Assessment has been carried out for the mixture. Substances for which a Chemical Safety Assessment has been carried out:

None

## **SECTION 16: Other information**

Text of phrases referred to under heading 3:

H315 Causes skin irritation.

H412 Harmful to aquatic life with long lasting effects.

H318 Causes serious eye damage.

H302 Harmful if swallowed.

H411 Toxic to aquatic life with long lasting effects.

H226 Flammable liquid and vapour.

H332 Harmful if inhaled.

H336 May cause drowsiness or dizziness.

Hazard class and hazard category	Code	Description
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
Aquatic Chronic 2	4.1/C2	Chronic (long term) aquatic hazard, category 2
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

This safety data sheet has been completely updated in compliance to Regulation 2015/830.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	On basis of test data
Aquatic Chronic 3, H412	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.





It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use

This MSDS cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

ATE:

Acute Toxicity Estimate
Acute toxicity Estimate (Mixtures) ATEmix:

Chemical Abstracts Service (division of the American Chemical Society). CAS:

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances.

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IATA:

International Air Transport Association.

Dangerous Goods Regulation by the "International Air Transport Association" (IATA). IATA-DGR:

International Civil Aviation Organization. ICAO:

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

IMDG: International Maritime Code for Dangerous Goods. INCI: International Nomenclature of Cosmetic Ingredients. KSt: Explosion coefficient.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population. Predicted No Effect Concentration PNEC:

Regulation Concerning the International Transport of Dangerous Goods by Rail. RID:

STEL: Short Term Exposure limit. STOT: Specific Target Organ Toxicity. TLV: Threshold Limiting Value. TWA: Time-weighted average WGK: German Water Hazard Class.

