

Conforms to Reg. (EU) 830/2015

Board Code S-P4/2-2 Board Date 05/2010

Board Rev. 1

92/09

Revision date 21.05.2018 Rev. nº 6

Revision date RLAB

Rev. n° DG

Revision date RLAB

Rev. nº 1 di 11

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: F_83 - 036_042

Product name PIATTI Limone L'Originale AMACASA

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

Identified Uses	Industrial	Professional	Consumer	
dishwashing detergent	-	❤	✓	
Uses Advised Against				

Do not use for uses other than those indicated

1.3. Details of the supplier of the safety data sheet

Name **NEW FADOR S.r.I.** Full address Via M. Calderara 31 District and Country 25018 Montichiari (BS) Tel. +39 030 961243 Fax +39 030 962500

e-mail address of the competent person

responsible for the Safety Data Sheet info@newfador.it

1.4. Emergency telephone number

For urgent inquiries refer to tel. +39 030 961243 (office hours)

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Skin irritation, category 2 Causes skin irritation. H315 Eye irritation, category 2 H319 Causes serious eye irritation. Classified according to ICE-PH-15/0338 TEST report.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words: Warning

Hazard statements:

H319 Causes serious eye irritation. H315 Causes skin irritation.

Precautionary statements:

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

P102 Keep out of reach of children.

Wear protective gloves / eye protection / face protection. P280

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

P337+P313 If eye irritation persists: Get medical advice / attention.



Revision date

Conforms to Reg. (EU) 830/2015

Board Code S-P4/2-2 Board Date 05/2010

Board Rev. 1

92/09

Revision date 21.05.2018

6 RLAB

Rev. n°

Rev. n°

Revision date RLAB Rev. n° 2 di 11

Ingredients according to Regulation (EC) No. 648/2004

Less than 5% amphoteric surfactants 5% or over but less than 15% anionic surfactants

perfumes, Limonene

preservation agents: 2-BROMO-2-NITROPROPANE-1,3-DIOL, GLUTARAL, BENZISOTHIAZOLINONE

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification x = Conc. % Classification 1272/2008 (CLP)

BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., SODIUM SALTS

CAS 68411-30-3 8 ≤ x < 9 Acute Tox. 4 H302, Eve Dam 1 H318

Eye Dam. 1 H318, Skin Irrit. 2 H315, Aquatic Chronic 3 H412

Aquatic Chronic 3 H412

EC 270-115-0 INDEX -

Reg. no. 01-2119489428-22

ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS

EC 500-234-8 INDEX -

Reg. no. 01-2119488639-16

2-BROMO-2-NITROPROPAN-1,3-DIOL

CAS 52-51-7 $0 \le x < 0.05$ Acute Tox. 4 H302,

Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335,

Aquatic Acute 1 H400 M=10, Aquatic Chronic 2 H411

EC 200-143-0 INDEX 603-085-00-8 Reg. no. 01-2119980938-15

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Wash contaminated clothing before using it again. INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately. INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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



Conforms to Reg. (EU) 830/2015

Board Code S-P4/2-2 Board Date 05/2010

Board Rev. 1

Document n° Revision date Rev. n° Rev. n

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTER'S

Normal firefighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from



Material Safety Data Sheet Conforms to Reg. (EU) 830/2015

Board Code S-P4/2-2 Board Date 05/2010

Board Rev. 1

ent n°	Revision date	Rev. n°	Revision date	Rev. n°	Revision date	Rev. n°	
09	21.05.2018	6	RLAB	DG	RLAB	4 di 11	

any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Predicted no-effect concentra		L DERIVS., SODI	UM SALTS					
	allon - PINEC			0.269	ma	/1		
Normal value in fresh water				0,268	mg/			
Normal value in marine wate				0,027	mg/			
Normal value for fresh water				8,1	mg/			
Normal value for marine water				6,8	mg/			
Normal value for water, inter				0,017	mg/			
Normal value of STP microo				3,43	mg/			
Normal value for the terrestri	·			35	mg/	/kg		
Health - Derived no-effe	Effects on consumers	MEL			Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,425 mg/kg bw/d				
Inhalation			1,5	1,5 mg/m3			6	6 mg/m3
Skin				42,5 mg/kg bw/d				85 mg/kg bw/d
ALCOHOLS, C12-14, E7 Predicted no-effect concentra		FATES, SODIUN	I SALTS					
Normal value in fresh water				0,24	mg/	/1		
Normal value in marine wate	r			0,024	mg/	/I		
Normal value for fresh water	sediment			0,917	mg/	/kg		
Normal value for marine water	er sediment			0,092	mg/			
Normal value for water, inter-	mittent release			0,071	mg/	/I		
Normal value of STP microo	rganisms			10	g/l			
Normal value for the terrestri	al compartment			7,5	mg/	/kg		
Health - Derived no-effe	ect level - DNEL / D Effects on consumers	DMEL			Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				15 mg/kg bw/d				
Inhalation				52 mg/m3				175 mg/m3
Skin				1650 mg/kg bw/d				2750 mg/kg bw/d
2-BROMO-2-NITROPRO Predicted no-effect concentra								
Normal value in fresh water				0,01	mg/	/1		
Normal value in marine wate	r			0,001	mg/	/I		
Normal value for fresh water	sediment			0,041	mg/	/kg		
Normal value for marine water	er sediment			0,003	mg/	/kg		
Normal value for water, inter	mittent release			0,003	mg/	/I		
Normal value of STP microo	rganisms			0,43	mg/	/I		
Normal value for the terrestri	al compartment			0,5	mg/	/kg		
Health - Derived no-effe	ect level - DNEL / D Effects on consumers	DMEL			Effects on workers			



Conforms to Reg. (EU) 830/2015

Board Code S-P4/2-2 Board Date 05/2010

Board Rev. 1

Revision date Rev. n° Revision date Revision date Rev. n° Rev. n° Document no 21.05.2018 **RLAB** 5 di 11 92/09 6 RLAB DG

Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		1,1 mg/kg bw/d		0,35 mg/kg bw/d				
Inhalation	1,3 mg/m3	3,7 mg/m3	1,3 mg/m3	1,2 mg/m3	4,2 mg/m3	12,3 mg/m3	4,2 mg/m3	4,1 mg/m3
Skin	0,008 mg/cm2	4,2 mg/kg bw/d	0,008 mg/cm2	1,4 mg/kg bw/d	0,013 mg/cm2	7 mg/kg bw/d	0,013 mg/cm2	2,3 mg/kg bw/d

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance liquid Colour areen characteristic Odour Odour threshold Not available Ha 5,5 Melting point / freezing point Not available Initial boiling point Not available Boiling range Not available Flash point Not available Evaporation rate Not available Flammability (solid, gas) Not available Lower inflammability limit Not available Upper inflammability limit Not available Lower explosive limit Not available Upper explosive limit Not available Vapour pressure Not available Vapour density Not available Relative density 1,02 g/ml Solubility Partition coefficient: n-octanol/water Not available Auto-ignition temperature Not available

soluble in water



Conforms to Reg. (EU) 830/2015

Board Code S-P4/2-2

Board Date 05/2010

Board Rev. 1

 Document n°
 Revision date
 Rev. n°
 Revision date
 Rev. n°
 Revision date
 Rev. n°

 92/09
 21.05.2018
 6
 RLAB
 DG
 RLAB
 6 di 11

Decomposition temperature Viscosity Explosive properties Oxidising properties Not available 500 +/- 100 mPa sec

not classified as explosive, contains no explosive substances according to CLP Art. (14 (2))

the product is not an oxidizing substance

9.2. Other information

Information not available

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

2-BROMO-2-NITROPROPAN-1,3-DIOL

Decomposes on contact with: water, metals, strong bases.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

2-BROMO-2-NITROPROPAN-1,3-DIOL

Avoid exposure to: light, UV rays, moisture.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

2-BROMO-2-NITROPROPAN-1,3-DIOL

May develop: nitric oxide, carbon oxides, hydrobromic acid.

SECTION 11. Toxicological information

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:

Not classified (no significant component)

LD50 (Oral) of the mixture:

>2000 mg/kg

LD50 (Dermal) of the mixture:

Not classified (no significant component)

2-BROMO-2-NITROPROPAN-1,3-DIOL

LD50 (Oral) 254 mg/kg rat



Revision date

Conforms to Reg. (EU) 830/2015

Board Code S-P4/2-2 Board Date 05/2010

Board Rev. 1

92/09

Revision date 21.05.2018

6 RLAB

Rev. n°

Rev. n°

Revision date RLAB Rev. n°
7 di 11

LD50 (Dermal) 64 mg/kg rat LC50 (Inhalation) 0,588 mg/l/4h rat

BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., SODIUM SALTS LD50 (Oral) 1080 mg/kg rat

LD50 (Dermal) > 2000 mg/kg rat

ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS

LD50 (Oral) > 2000 mg/kg rat LD50 (Dermal) > 2000 mg/kg rat

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

12.1. Toxicity

2-BROMO-2-NITROPROPAN-1,3-DIOL

LC50 - for Fish 20 mg/l/96h Oncorhynchus mykiss EC50 - for Crustacea 1,6 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants 0,25 mg/l/72h Chronic NOEC for Algae / Aquatic Plants 0,08 mg/l

BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., SODIUM SALTS

 LC50 - for Fish
 1,67 mg/l/96h

 EC50 - for Crustacea
 2,9 mg/l/48h

 EC50 - for Algae / Aquatic Plants
 0,91 mg/l/72h

 Chronic NOEC for Fish
 0,23 mg/l 72d

 Chronic NOEC for Crustacea
 0,5 mg/l 7d

 Chronic NOEC for Algae / Aquatic Plants
 0,5 mg/l 96h

ALCOHOLS, C12-14, ETHOXYLATED,

SULFATES, SODIUM SALTS

LC50 - for Fish > 1 mg/l/96h Danio rerio EC50 - for Crustacea 7,2 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants 27 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish 0,14 mg/l 28d Oncorhynchus mykiss
Chronic NOEC for Crustacea 0,18 mg/l 21d Daphnia magna
Chronic NOEC for Algae / Aquatic Plants 0,93 mg/l Desmodesmus subspicatus

12.2. Persistence and degradability

2-BROMO-2-NITROPROPAN-1,3-DIOL

Solubility in water 286000 mg/l

Rapidly degradable



Conforms to Reg. (EU) 830/2015

Board Code S-P4/2-2 Board Date 05/2010

Board Rev. 1

the same of the sa						
Document n°	Revision date	Rev. n°	Revision date	Rev. n°	Revision date	Rev. n°
92/09	21.05.2018	6	RLAB	DG	RLAB	8 di 11

BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., SODIUM SALTS Rapidly degradable

ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS Rapidly degradable

12.3. Bioaccumulative potential

2-BROMO-2-NITROPROPAN-1,3-DIOL

Partition coefficient: n-octanol/water 0,22 BCF 3,16

BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., SODIUM SALTS

BCF 159

12.4. Mobility in soil

ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS

Partition coefficient: soil/water 0,34

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations. CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable



Conforms to Reg. (EU) 830/2015

Revision date

Board Code S-P4/2-2 Board Date 05/2010

Board Rev. 1

Document n° 92/09

Revision date 21.05.2018

6 RLAB

Rev. n°

Rev. n°

Revision date RLAB Rev. n° 9 di 11

14.6. Special precautions for user

Not applicable

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

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EC: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

3

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

Regulation (EC) No. 648/2004

Ingredients according to Regulation (EC) No. 648/2004

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.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4 Acute toxicity, category 4

Eye Dam. 1 Serious eye damage, category 1

Eye Irrit. 2 Eye irritation, category 2

Skin Irrit. 2 Skin irritation, category 2

STOT SE 3 Specific target organ toxicity - single exposure, category 3

Aquatic Acute 1 Hazardous to the aquatic environment, acute toxicity, category 1

Aquatic Chronic 2 Hazardous to the aquatic environment, chronic toxicity, category 2

Aquatic Chronic 3 Hazardous to the aquatic environment, chronic toxicity, category 3

H302 Harmful if swallowed.
H312 Harmful in contact with skin.



Conforms to Reg. (EU) 830/2015

Board Code S-P4/2-2 Board Date 05/2010

Board Rev. 1

Document n°	Revision date	Rev. n°	Revision date	Rev. n°	Revision date	Rev. n°
92/09	21.05.2018	6	RLAB	DG	RLAB	10 di 11

H318 Causes serious eye damage. H319 Causes serious eye irritation. H315 Causes skin irritation.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.

The skin and/or eye classification of this product was derived using bridging principles (such as dilution, interpolation within one hazard category or substantially similar mixtures; with or without expert judgement) following Article 9(3) and Article 9(4) of Regulation (EC) No 1272/2008. Report test ICE-PH-15/0338

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

- 1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
- 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
- 3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
- 4. Regulation (EU) 2015/830 of the European Parliament
- 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
- 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
- 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
- 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- 10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
- 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
- 13. Regulation (EU) 2017/776 (X Atp. CLP)
- The Merck Index. 10th Edition
- Handling Chemical Safety
- INRS Fiche Toxicologique (toxicological sheet)
- Patty Industrial Hygiene and Toxicology
- N.I. Sax Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals Ministry of Health and ISS (Istituto Superiore di Sanità) Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.



Material Safety Data Sheet Conforms to Reg. (EU) 830/2015

Board Code S-P4/2-2 Board Date 05/2010

Board Rev. 1

Revision date Rev. n° Revision date Revision date Rev. n° Document n° Rev. n° 92/09 21.05.2018 6 **RLAB** DG **RLAB** 11 di 11

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses. Provide appointed staff with adequate training on how to use chemical products.