Safety Data Sheet

Compliant with Annex II of REACH - Regulation 2015/830

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

1.1. Product identifier

Code: **38529113200101**
Name **BREATHABLE RESANA**

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

Description / Use **Interior wall paint.**

1.3. Information on the supplier of the safety data sheet

Business name **Colorificio A. & B. Casati SpA Via**
Address **Valpantena 59 / B - Poiano**
Location and State **37142 VERONA (VR)**
ITALY
tel. 045 550 244
fax 045 550 414

e-mail of the competent person responsible for the safety data sheet **tintotec@casati.it**

1.4. Emergency telephone number

For urgent information contact **Ca 'Granda Niguarda Major Hospital (MI) Tel. 0266101029 A. Gemelli Polyclinic (ROME) Tel. 063054343**
CAV "Bambinio Gesù Pediatric Hospital" Department of Emergency and Acceptance DEA (ROME) Tel. 0668593726
CAV Policlinico "Umberto I" (ROME) Tel. 0649978000
Cardarelli Hospital (NA) Tel. 0817472901
Univ. Foggia Hospital (FG) Tel. 800183459 Papa Giovanni XXII Hospital (BG) Tel. 800883300
CAV National Toxicological Information Center (PV) Tel. 038224444
Careggi Hospital Medical Toxicology Unit (FI) Tel. 0557947819

SECTION 2. Hazards identification

2.1. Substance or mixture classification

The product is classified as dangerous pursuant to the provisions of Regulation (EC) 1272/2008 (CLP) (and subsequent amendments and adjustments). The product therefore requires a safety data sheet compliant with the provisions of Regulation (EU) 2015/830. Any additional information regarding risks to health and / or the environment are given in sections. 11 and 12 of this sheet.

Hazard classification and indications:
Skin sensitization, category 1 H317 May cause an allergic skin reaction.

2.2. Label elements

Danger labeling pursuant to Regulation (EC) 1272/2008 (CLP) and subsequent amendments and adjustments.

Hazard pictograms:

Warnings: Caution

Hazard statements:
H317 May cause an allergic skin reaction.

SECTION 2. Hazards identification... / >>

EUH208 Contains: Blend of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3: 1)
It can cause an allergic reaction.

Precautionary advice:

P501 Dispose of the product / container in collection points for hazardous or special
P102 waste. Keep out of reach of children.
P280 Wear protective gloves.
P101 If you need to consult a doctor, have the container or the label of the product available. Avoid
P261 breathing dust / fume / gas / mist / vapors / spray.
P333 + P313 If skin irritation or rash occurs: seek medical attention.

Contains: 2-methyl-2H-isothiazol-3-one

VOC (Directive 2004/42 / EC):

Opaque paints for interior walls and ceilings. VOC expressed in g / liter of ready-to-use product:		0.58
Maximum limit:		30.00
- Diluted with:	3.00%	WATER

2.3. Other dangers

On the basis of available data, the product does not contain PBT or vPvB substances in percentage greater than 0.1%.

SECTION 3. Composition / information on ingredients

3.2. Blends

Contains:

Identification		Conc.%	Classification 1272/2008 (CLP)
3-iodo-2-propinylbutylcarbamate			
CAS	*55406-53-6*	0.025	**Acute Tox. 3 H331, Acute Tox. 4 H302, STOT RE 1 H372, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Acute 1 H400 M = 10, Aquatic Chronic 1 H410 M = 1**
THERE IS	*259-627-5*		
INDEX	*616-212-00-7*		
BRONOPOL			
CAS	*52-51-7*	0.015	**Acute Tox. 3 H301, Acute Tox. 3 H331, 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**
THERE IS	*200-143-0*		
INDEX	*603-085-00-8*		
2-methyl-2H-isothiazol-3-one			
CAS	*2682-20-4*	0.005	**Acute Tox. 2 H330, Acute Tox. 3 H301, Acute Tox. 3 H311, Skin Corr. 1B H314, Eye Dam.1 H318, Skin Sens. 1 H317, Aquatic Acute 1 H400 M = 1, Aquatic Chronic 2 H411**
THERE IS	*220-239-6*		
INDEX			
Blend of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3: 1) *CAS*			
	55965-84-9	0.00	**Acute Tox. 3 H301, Acute Tox. 3 H311, Acute Tox. 3 H331, Skin Corr. 1A H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Acute 1 H400 M = 1, Aquatic Chronic 1 H410 M = 1**
THERE IS			
INDEX	*613-167-00-5*		

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

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove any contact lenses. Wash immediately and abundantly with water for at least 30/60 minutes, opening the eyelids well. Consult a physician immediately.
SKIN: Take off contaminated clothing. Take a shower immediately. Consult a physician immediately.
INGESTION: Give as much water to drink as possible. Consult a physician immediately. Do not induce vomiting unless expressly

SECTION 4. First aid measures... / >>

authorized by the doctor INHALATION: Call a doctor immediately. Take the person out into the fresh air, away from the scene of the accident. If breathing stops, give artificial respiration. Take adequate precautions for the rescuer.

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

No specific information on symptoms and effects caused by the product is known.

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

Information not available

SECTION 5. Firefighting measures

5.1. Fire fighting

SUITABLE EXTINGUISHING MEDIA
The extinguishing media are the traditional ones: carbon dioxide, foam, powder and nebulized water.
UNSUITABLE EXTINGUISHING MEDIA
No one in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE Avoid
breathing combustion products.

5.3. Recommendations for firefighters

GENERAL INFORMATIONS
Cool the containers with jets of water to avoid product decomposition and the development of substances potentially hazardous to health. Always wear full fire protection equipment. Collect the extinguishing water which must not be discharged into the sewers. Dispose of the contaminated water used for extinguishing and the residue of the fire according to current regulations.

EQUIPMENT
Normal clothing for firefighting, such as an open circuit compressed air breathing apparatus (EN 137), flame retardant suit (EN469), flame retardant gloves (EN 659) and fire brigade boots (HO A29 or A30).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Stop the leak if there is no danger.
Wear suitable protective equipment (including personal protective equipment referred to in section 8 of the safety data sheet) to prevent contamination of skin, eyes and personal clothing. These indications are valid both for the workers and for emergency interventions.

6.2. Environmental precautions

Prevent the product from entering sewers, surface water, groundwater.

6.3. Methods and materials for containment and cleaning up

Suck up the leaked product into a suitable container. Evaluate the compatibility of the container to be used with the product, checking section 10.
Absorb the remainder with inert absorbent material.
Provide sufficient ventilation of the place affected by the leak. The disposal of contaminated material must be carried out in accordance with the provisions of point 13.

6.4. Reference to other sections

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

SECTION 7. Handling and storage

7.1. Precautions for Safe Handling

Handle the product after consulting all the other sections of this safety data sheet. Avoid the dispersion of the product in the environment. Do not eat, drink or smoke during use. Remove contaminated clothing and protective equipment before entering eating areas.

SECTION 7. Handling and storage . . . / >>

7.2. Conditions for safe storage, including any incompatibilities

Keep only in the original container. Keep the containers closed, in a well-ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, checking section 10.

7.3. Specific end uses

Information not available

SECTION 8. Exposure controls / personal protection

8.1. Control parameters

Normative requirements:

GBR	United Kingdom	EH40 / 2005 Workplace exposure limits (Third edition, published 2018)
	TLV-ACGIH	ACGIH 2019

TITANIUM DIOXIDE

Threshold limit value

Guy	State	TWA / 8h		STEL / 15min	Notes / Observations
		mg / m3	ppm	mg / m3 ppm	
WEL	GBR	4			RESPIR
WEL	GBR	10			INALAB
TLV-ACGIH		10			

Predicted No Effect Concentration on the Environment - PNEC

Reference value in fresh water	0.184	mg / l
Reference value in sea water	0.0184	mg / l
Reference value for sediments in fresh water	1000	mg / kg
Reference value for sediments in sea water	100	mg / kg
Reference value for STP microorganisms	100	mg / l
Reference value for the food chain (secondary poisoning)	1667	mg / kg
Reference value for the terrestrial compartment	100	mg / kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on Local Consumers				Effects on workers			
Route of Exposition	Systemic acute	Systemic acute	Locals chronic	Systemic chronic	Locals acute	Systemic acute	Locals chronic	Systemic chronic
Oral				700 mg / kg bw / d				
Inhalation								10 mg / m3

POLESTAR 200 P

Threshold limit value

Guy	State	TWA / 8h		STEL / 15min	Notes / Observations
		mg / m3	ppm	mg / m3 ppm	
TLV-ACGIH		2			RESPIR

SECTION 8. Exposure controls / personal protection

. . . / >>

BRONOPOL

Predicted No Effect Concentration on the Environment - PNEC

Reference value in fresh water	0.01	mg / l
Reference value in sea water	0.0008	mg / l
Reference value for sediments in fresh water	0.041	mg / kg
Reference value for sediments in sea water	0.00328	mg / kg
Reference value for water, intermittent release	0.0025	mg / l
Reference value for STP microorganisms	0.43	mg / l
Reference value for the terrestrial compartment	0.5	mg / kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on Local				Effects on workers			
Route of Exposition	Consumers	Systemic	Locals	Systemic	Locals	Systemic	Locals	Systemic
	acute	acute	chronic	chronic	acute	acute	chronic	chronic
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
Dermal	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

Legend:
(C) = CEILING; INALAB = Inhalable Fraction; RESPIR = Breathing Fraction; TORAC = Thoracic Fraction.
VND = hazard identified but no DNEL / PNEC available; NEA = no exposure expected; NPI = no hazard identified.

8.2. Exposure controls

Considering that the use of adequate technical measures should always take priority over personal protective equipment, ensure good ventilation in the workplace through effective local exhaust.
For the choice of personal protective equipment, if necessary, seek advice from your chemical suppliers. Personal protective equipment must bear the CE mark which certifies their compliance with current regulations. Provide an emergency shower with face and eye basin.
HAND PROTECTION
Protect hands with category III work gloves (ref. Standard EN 374).
For the final choice of the material of the work gloves it is necessary to consider: compatibility, degradation, breakage time and permeation.
In the case of preparations, the resistance of work gloves to chemical agents must be checked before use as it is not foreseeable. Gloves have a wear time that depends on the duration and method of use.
SKIN PROTECTION
Wear work clothes with long sleeves and safety footwear for professional use of category II (ref. Regulation 2016/425 and standard EN ISO 20344). Wash with soap and water after removing protective clothing.
EYE PROTECTION
It is recommended to wear airtight protective goggles (ref. Standard EN 166). RESPIRATORY PROTECTION
In case of exceeding the threshold value (eg TLV-TWA) of the substance or of one or more of the substances present in the product, it is recommended to wear a mask with a type B filter whose class (1, 2 or 3) must be chosen in relation to the limit concentration of use. (ref. standard EN 14387). If there are gases or vapors of a different nature and / or gases or vapors with particles (aerosols, fumes, mists, etc.), combined filters must be provided.
The use of respiratory protection means is necessary if the technical measures adopted are not sufficient to limit the exposure of the worker to the threshold values taken into consideration. The protection offered by the masks is however limited.
In the event that the substance in question is odorless or its olfactory threshold is higher than the relative TLV-TWA and in the event of an emergency, wear an open-circuit compressed air breathing apparatus (ref. Standard EN 137) or a self-contained breathing apparatus. outdoor air (ref. EN 138 standard). For the correct choice of the respiratory protection device, refer to the EN 529 standard.
ENVIRONMENTAL EXPOSURE CONTROLS
Emissions from manufacturing processes, including those from ventilation equipment should be controlled for compliance with environmental protection legislation.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Property	Value	Information
Physical state	liquid	
Color	White	
Odor	characteristic	
Odor threshold	Unavailable	

SECTION 9. Physical and chemical properties... / >>

pH	7.5-8.5
Melting or freezing point Initial	Unavailable
boiling point	Unavailable
Boiling range Flash	Unavailable
point Evaporation rate	> 60 ° C
	Unavailable
Flammability of solids and	Unavailable
gases Lower flammability limit	Unavailable
Upper flammability limit Lower	Unavailable
explosive limit Upper explosive	Unavailable
limit Vapor pressure	Unavailable
	Unavailable
Vapor density	Unavailable
Relative density	0.78
Solubility	Miscible with water
Partition coefficient: n-octanol / water: Auto-	Unavailable
ignition temperature	Unavailable
Decomposition temperature	Unavailable
Viscosity	Unavailable
Explosive properties	Unavailable
Oxidizing properties	Unavailable

9.2. Other information

VOC (Directive 2004/42 / EC):	0.08% - 0.60	g / liter

SECTION 10. Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

In normal conditions of use and storage no dangerous reactions are foreseeable.

10.4. Conditions to avoid

None in particular. However, follow the usual precautions towards chemicals.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

BRONOPOL
By decomposition it develops: nitrogen oxides.

SECTION 11. Toxicological information

In the absence of experimental toxicological data on the product itself, any health hazards of the product have been assessed on the basis of the properties of the substances contained, according to the criteria established by the reference legislation for classification.
Therefore, consider the concentration of the individual dangerous substances possibly mentioned in sect. 3, to evaluate the toxicological effects deriving from exposure to the product.

11.1. Information on toxicological effects

Metabolism, kinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

SECTION 11. Toxicological information... / >>

Delayed and immediate effects and 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 relevant component) Not
LD50 (Oral) of the mixture: LD50	classified (no relevant component) Not
(Dermal) of the mixture:	classified (no relevant component)

3-iodo-2-propinylbutylcarbamate	
LD50 (Oral)	> 300 mg / kg Rat
LD50 (Dermal)	> 2000 mg / kg Rat
LC50 (Inhalation)	0.67 mg / l

BRONOPOL	
LD50 (Oral)	193 mg / kg Rat
LD50 (Dermal)	1100 mg / kg Rat
LC50 (Inhalation)	> 0.588 mg / l / 4h Rat

SKIN CORROSION / SKIN IRRITATION

It does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / EYE IRRITATION

It does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITIZATION

Skin sensitizer
It can cause an allergic reaction.
Contains:
Blend of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3: 1)

MUTAGENICITY ON GERMINAL CELLS

It does not meet the classification criteria for this hazard class

CARCINOGENICITY

It does not meet the classification criteria for this hazard class

REPRODUCTION TOXICITY

It does not meet the classification criteria for this hazard class

SPECIFIC TARGET ORGAN TOXICITY (STOT) - SINGLE EXPOSURE

It does not meet the classification criteria for this hazard class

SPECIFIC TARGET ORGAN TOXICITY (STOT) - REPEATED EXPOSURE

It does not meet the classification criteria for this hazard class

DANGER IN CASE OF SUCTION

It does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

As specific data on the preparation are not available, use according to good working practices, avoiding to disperse the product in the environment. Avoid dispersing the product in the ground or water courses. Notify the competent authorities if the product has reached water courses or if it has contaminated the soil or vegetation. Take measures to minimize the effects on the aquifer.

12.1. Toxicity

2-methyl-2H-isothiazol-3-one LC50 - Fish	6 mg / l / 96h
EC50 - Crustaceans	1.61 mg / l / 48h
Chronic NOEC for Pisces	3.06 mg / l
Chronic NOEC Crustaceans	0.882 mg / l

3-iodo-2-propinylbutylcarbamate	
LC50 - Fish	0.145 mg / l / 96h Oncorhynchus mykiss
EC50 - Crustaceans	0.47 mg / l / 48h Daphnia magna
EC50 - Algae / Aquatic Plants	0.049 mg / l / 72h Pseudokirchneriella subcapitata
NOEC Chronic Fish	0.014 mg / l pimephales promelas-28d
Chronic NOEC Crustaceans	0.01 mg / l Daphnia magna-21d
Chronic NOEC for Algae / Aquatic Plants	0.013 mg / l / 72h Pseudokirchneriella subcapitata

Mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3: 1)

LC50 - Fish	0.19 mg / l / 96h
EC50 - Crustaceans	0.16 mg / l / 48h
Chronic NOEC Crustaceans	0.035 mg / l

BRONOPOL	
LC50 - Pisces	11 mg / l / 96h Bluegill sunfish
EC50 - Crustaceans	1.08 mg / l / 48h Daphnia magna (Water flea) 0.25
EC50 - Algae / Aquatic Plants	mg / l / 72h Pseudokirchneriella subcapitata 0.06 mg /
Chronic NOEC Crustaceans	l Daphnia magna (Water flea) 0.03 mg / l
Chronic NOEC for Algae / Aquatic Plants	Pseudokirchneriella subcapitata

12.2. Persistence and degradability

3-iodo-2-propinylbutylcarbamate
Rapidly degradable

BRONOPOL
Inherently degradable

12.3. Bioaccumulation potential

3-iodo-2-propinylbutylcarbamate Partition coefficient: n-octanol / water	2.8 Log Kow OECD 117

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain PBT or vPvB substances in percentage greater than 0.1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse if possible. Product residues are to be considered special hazardous waste. The dangerousness of the waste that partially contains this product must be assessed on the basis of the laws in force.
Disposal must be entrusted to an authorized waste management company, in compliance with national and possibly local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be sent for recovery or disposal in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not to be considered dangerous pursuant to the provisions in force on the transport of dangerous goods by road (ADR), by rail (RID), by sea (IMDG Code) and by air (IATA).

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard classes

Not applicable

14.4. Packing group

Not applicable

14.5. Dangers for the environment

Not applicable

14.6. Special precautions for users

Not applicable

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

Not relevant information

SECTION 15. Regulatory information

15.1. Health, safety and environmental legislation and regulations specific to the substance or mixture

Seveso Category - Directive 2012/18 / EC: None

Restrictions relating to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain SVHC substances in percentage greater than 0.1%.

Substances subject to authorization (Annex XIV REACH)
None

Substances subject to export notification obligation Reg. (EC) 649/2012:
None

Substances subject to the Rotterdam Convention:
None

SECTION 15. Regulatory information

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Substances subject to the Stockholm Convention:
None

Sanitary checks
Workers exposed to this chemical agent dangerous to health must be subjected to health surveillance carried out in accordance with the provisions of art. 41 of Legislative Decree 81 of 9 April 2008 unless the risk to the safety and health of the worker has been assessed as irrelevant, in accordance with the provisions of art. 224 paragraph 2.

VOC (Directive 2004/42 / EC):
Opaque paints for interior walls and ceilings.

Legislative Decree 152/2006 and subsequent amendments

Emissions according to Part V Annex I:

TAB. B.	Class 3	00.31%
TAB. D.	Class 3	<0.01%
WATER		29.74%

15.2. Chemical safety assessment

A chemical safety assessment has not been developed for the mixture / substances indicated in section 3.

SECTION 16. Other information

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

Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1 Skin
Skin Corr. 1A	corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3 Skin
Skin Sens. 1	sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H330	Fatal if inhaled.
H301	Toxic if ingested.
H311	Toxic in contact with the skin.
H331	Toxic if inhaled.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H372	Causes damage to organs through prolonged or repeated exposure. It
H314	causes serious skin burns and serious eye injuries.
H318	Causes serious eye damage.
H315	Causes skin irritation. It can
H335	irritate the respiratory tract.
H317	May cause an allergic skin reaction. Very toxic
H400	to aquatic organisms.
H410	Very toxic to aquatic life with long lasting effects. Toxic to aquatic
H411	life with long lasting effects.

LEGEND:
- ADR: European agreement for the transport of dangerous goods by road
- CAS NUMBER: Number of the Chemical Abstract Service
- EC50: Concentration affecting 50% of the population under test
- CE NUMBER: Identification number in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived no effect level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System for Classification and Labeling of Chemicals
- IATA DGR: Regulations for the transport of dangerous goods of the International Air Transport Association
- IC50: Concentration of immobilization of 50% of the population subject to testing
- IMDG: International maritime code for the transport of dangerous goods

SECTION 16. Other information... / >>

- IMO: International Maritime Organization - INDEX NUMBER: Identification number in Annex VI of the CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- OEL: Occupational exposure level
- PBT: Persistent, bioaccumulating and toxic according to REACH
- PEC: Predicted environmental concentration
- PEL: Predictable level of exposure
- PNEC: Predicted No Effect Concentration
- REACH: EC Regulation 1907/2006
- RID: Regulations for the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration which must not be exceeded during any moment of occupational exposure.
- TWA STEL: Short term exposure limit
- TWA: Weighted average exposure limit
- VOC: Volatile organic compound
- vPvB: Very persistent and very bioaccumulating according to REACH
- WGK: Water hazard class (Germany).

GENERAL BIBLIOGRAPHY:
1. Regulation (EC) 1907/2006 of the European Parliament (REACH)
2. Regulation (EC) 1272/2008 of the European Parliament (CLP)
3. Regulation (EU) 790/2009 of the European Parliament (I Atp. CLP)
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 of the European Parliament (II Atp. CLP)
6. Regulation (EU) 618/2012 of the European Parliament (III Atp. CLP)
7. Regulation (EU) 487/2013 of the European Parliament (IV Atp. CLP)
8. Regulation (EU) 944/2013 of the European Parliament (V Atp. CLP)
9. Regulation (EU) 605/2014 of the European Parliament (VI Atp. CLP)
10. Regulation (EU) 2015/1221 of the European Parliament (VII Atp. CLP)
11. Regulation (EU) 2016/918 of the European Parliament (VIII Atp. CLP)
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
16. Regulation (EU) 2019/521 (XII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- NI Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA Agency website
- Database of SDS models of chemical substances - Ministry of Health and National Institute of Health

Note for the user:
The information contained in this sheet is based on the knowledge available to us at the date of the latest version. The user must ensure the suitability and completeness of the information in relation to the specific use of the product.
This document should not be construed as a guarantee of any specific property of the product.
Since the use of the product does not fall under our direct control, the user is obliged to observe the laws and regulations in force on hygiene and safety under his own responsibility. No responsibility is assumed for improper use.
Provide adequate training to personnel assigned to the use of chemical products.

The classification of the product is based on the calculation methods set out in Annex I of CLP, unless otherwise indicated in sections 11 and 12.

The methods for evaluating the chemical-physical properties are reported in section 9.

Changes compared to the previous revision The
following sections have been made changes:
02/03/04/06/07/08/09/10/11/12/13/15 / 16. TLV
changed in section 8.1 for the following countries: GBR ,
TLV-ACGIH,