

## Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

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

**1.1. Product identifier**

Code: 411 00 21000-6409  
Product name: ANTI MARTEN SPRAY

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

Intended use: Repellent for martens and rodents en aerosol

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

Name: Meccanocar Italia S.r.l.  
Full address: Via San Francesco, 22  
District and Country: 56033 Capannoli (PI)  
Italy  
Tel. +39 0587 609433  
Fax +39 0587 607145

e-mail address of the competent person

responsible for the Safety Data Sheet: [moreno.meini@meccanocar.it](mailto:moreno.meini@meccanocar.it)

**1.4. Emergency telephone number**

For urgent inquiries refer to: National Poisons Information Service: +44 121 507 4123

### 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:

Aerosol, category 1	H222 H229	Extremely flammable aerosol. Pressurised container: may burst if heated.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.
Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Harmful to aquatic life with long lasting effects.

**2.2. Label elements**

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

Hazard pictograms:



Signal words:

Danger

Hazard statements:

<b>H222</b>	Extremely flammable aerosol.
<b>H229</b>	Pressurised container: may burst if heated.
<b>H336</b>	May cause drowsiness or dizziness.
<b>H412</b>	Harmful to aquatic life with long lasting effects.
<b>EUH066</b>	Repeated exposure may cause skin dryness or cracking.

Precautionary statements:

<b>P210</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
<b>P251</b>	Do not pierce or burn, even after use.
<b>P410+P412</b>	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
<b>P211</b>	Do not spray on an open flame or other ignition source.
<b>P101</b>	If medical advice is needed, have product container or label at hand.
<b>P102</b>	Keep out of reach of children.
<b>P260</b>	Do not breathe the spray.
<b>P501</b>	Dispose of contents / container in accordance with local regulations.

### 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

### 3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
<b>PENTANE</b>		
CAS 109-66-0	23,5 ≤ x < 25	Flam. Liq. 2 H225, Asp. Tox. 1 H304, STOT SE 3 H336, Aquatic Chronic 2 H411, EUH066
EC 203-692-4		
INDEX -		
<b>BUTANE</b>		
CAS 106-97-8	19,5 ≤ x < 21	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: C U
EC 203-448-7		
INDEX 601-004-00-0		
Reg. no. 01-2119474691-32-XXXX		
<b>PROPANE</b>		
CAS 74-98-6	19,5 ≤ x < 21	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: U

EC 200-827-9

INDEX 601-003-00-5

Reg. no. 01-2119486944-21-XXXX

#### ISOBUTANE

CAS 75-28-5                      19,5 ≤ x < 21              Flam. Gas 1A H220, Press. Gas H280

EC 200-857-2

INDEX 601-004-00-0

Reg. no. 01-2119485395-27-XXXX

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

The product is an aerosol containing propellants. For the purposes of calculation of the health hazards, propellants are not considered (unless they have health hazards). The percentages indicated are inclusive of the propellants.

Percentage of propellants: 58,50 %

## 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. Get medical advice/attention 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

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

If overheated, aerosol cans can deform, explode and be propelled considerable distances. Put a protective helmet on before approaching the 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.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS**

Normal fire fighting 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**

Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site. Send away individuals who are not suitably equipped. Wear protective gloves / protective clothing / eye protection / face protection.

**6.2. Environmental precautions**

Do not disperse in the environment.

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

Use inert absorbent material to soak up leaked product. 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**

Avoid bunching of electrostatic charges. Do not spray on flames or incandescent bodies. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Do not eat, drink or smoke during use. Do not breathe spray.

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

Store in a place where adequate ventilation is ensured, away from direct sunlight at a temperature below 50°C / 122°F, away from any combustion sources.

**7.3. Specific end use(s)**

Information not available

**SECTION 8. Exposure controls/personal protection****8.1. Control parameters**

Regulatory References:

ESP España  
FRA France  
GBR United Kingdom  
NOR TLV-ACGIH

LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST)  
Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS  
EH40/2005 Workplace exposure limits (Third edition,published 2018)  
ACGIH 2019

ANTI MARTEN SPRAY

RCP TLV

ACGIH TLVs and BEIs –  
Appendix H

**PENTANO**

Predicted no-effect concentration - PNEC

Normal value in fresh water	23	mg/l
Normal value in marine water	23	mg/l
Normal value for fresh water sediment	1,2	mg/kg
Normal value for marine water sediment	1,2	mg/kg
Normal value of STP microorganisms	360	mg/l
Normal value for the terrestrial compartment	0,55	mg/kg

**Health - Derived no-effect level - DNEL / DMEL**

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral						214 mg/kg bw/d		
Inhalation				643 mg/m3				3000 mg/m3
Skin				214 mg/kg bw/d				432 mg/kg bw/d

**ISOBUTANE**

**Threshold Limit Value**

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
RCP TLV			1000	RESP

**PROPANE**

**Threshold Limit Value**

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
VLA	ESP		1000	
TLV	NOR	900	500	
TLV-ACGIH			1000	

**BUTANE**

**Threshold Limit Value**

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
VLA	ESP		1000	Gases
VLEP	FRA	1900	800	
WEL	GBR	1450	600	1810 750
TLV	NOR	600	250	
TLV-ACGIH				1000

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

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.

### HAND PROTECTION

None required.

### SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

### EYE PROTECTION

Wear airtight protective 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, a mask with a type AX filter combined with a type P filter should be worn (see standard EN 14387).

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.

### ENVIRONMENTAL EXPOSURE CONTROLS

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

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

### ISOBUTANE

Suitable glove material protective gloves, e.g. nitrile butadiene rubber gloves (NBR), leather gloves, heat insulating

Selection of protective gloves to meet specific workplace requirements.

Suitability for specific workplaces must be clarified with the manufacturers of protective gloves.

The information is based on our tests, references from literature and information from glove manufacturers or derived by analogy with similar materials.

Remember that the useful time per day of a chemical protection glove can be much shorter than the breakthrough time determined according to EN 374 due to the numerous influencing factors involved.

## SECTION 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance	aerosol
Colour	colourless
Odour	mild
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available

Flash point	< 0 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	1,4 % (V/V)
Upper inflammability limit	8 % (V/V)
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	3500 hPa
Vapour density	Not available
Relative density	0,6
Solubility	insoluble in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	240 °C
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

## 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.

### 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.

#### ISOBUTANE

Vapors can form an explosive mixture with air.

#### BUTANE

Vapors can form an explosive mixture with air.

### 10.4. Conditions to avoid

Avoid overheating.

ISOBUTANE

Keep away from heat and other causes of fire.

BUTANE

Avoid heat and sources of ignition.

#### 10.5. Incompatible materials

Strong reducing or oxidising agents, strong acids or alkalis, hot material.

ISOBUTANE

Strong oxidizing agents, chlorine, oxygen.

BUTANE

Strong oxidizing agents, chlorine, oxygen.

#### 10.6. Hazardous decomposition products

ISOBUTANE

In case of fire or production of thermal decomposition, for example, carbon monoxide, carbon dioxide (CO<sub>2</sub>).

BUTANE

In case of fire or production of thermal decomposition, for example, carbon monoxide, carbon dioxide (CO<sub>2</sub>).

## 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:

Not classified (no significant component)

LD50 (Dermal) of the mixture:

Not classified (no significant component)

#### PROPANE

Method: To study the concentrations at which the effects of the CNS occur following exposure by inhalation to propane by measuring LC50 (15 min) and EC50 (CNS) (10 min) in rats.

Reliability: 2

Species: Rat (Alderley Park (SPF); male / female)

Route of exposure: Inhalation

Results: LC50> 800 000 ppm

#### BUTANE

Method: Not indicated

Reliability: 2

Species: Rat (Alderley Park (SPF); male / female)

Route of exposure: Inhalation

Results: LC50: 1 443 mg / L air

#### SKIN CORROSION / IRRITATION

Repeated exposure may cause skin dryness or cracking.

#### SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

#### 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

#### PROPANE

Method: OECD 471 in vitro test

Reliability: 1

Species: Histidine Salmonella

Results: Negative with or without metabolic activation

Method: OECD 474-test in vivo

Reliability: 1

Species: Rat (Sprague-Dawley CD; male / female)

Route of exposure: Inhalation (gas)  
Results: Negative

**BUTANE**

Method: OECD 471 in vitro test  
Reliability: 1  
Species: Salmonella strains, S. typhimurium  
Results: Negative without metabolic activation  
Method: OECD 474-test in vivo  
Reliability: 1  
Species: Rat (Sprague-Dawley CD; male / female)  
Route of exposure: Inhalation (gas)  
Results: Negative

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

**BUTANE**

Method: OECD 413  
Reliability: 1  
Species: Rat (Sprague-Dawley CD; male / female)  
Route of exposure: Inhalation  
Results: NOAEC 10000 ppm

Adverse effects on sexual function and fertility

**PROPANE**

Method: OECD 413  
Reliability: 1  
Species: Rat (Sprague-Dawley CD; male / female)  
Route of exposure: Inhalation  
Results: NOAEC (fertility) 10 000 ppm

Adverse effects on development of the offspring

**PROPANE**

Method: EPA OPPTS 870.3700  
Reliability: 1  
Species: Rat (VAF / Plus®, Sprague-Dawley Derived (CD®) CrI: CD® IGS BR)  
Route of exposure: Inhalation (gas)  
Results: NOAEC (development) 10 426 ppm

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

**ISOBUTANE**

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

**PROPANE**

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

#### BUTANE

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

#### STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

#### ISOBUTANE

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for prolonged or repeated exposure.

#### PROPANE

Method: OECD 422

Reliability: 1

Species: Rat (Sprague-Dawley; male / female)

Route of exposure: Inhalation (gas)

Results: NOAEC 16 000 ppm

#### BUTANE

Method: OECD 413

Reliability: 1

Species: Rat (Sprague-Dawley; male / female)

Route of exposure: Inhalation (gas)

Results: NOAEC = 10000 ppm

#### ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

## SECTION 12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

### 12.1. Toxicity

Information not available

### 12.2. Persistence and degradability

#### BUTANE

Quickly degradable in water.

#### BUTANE

Solubility in water

0,1 - 100 mg/l

Rapidly degradable

## PROPANE

Solubility in water 0,1 - 100 mg/l

Rapidly degradable

**12.3. Bioaccumulative potential**

## BUTANE

Partition coefficient: n-octanol/water 1,09

## PROPANE

Partition coefficient: n-octanol/water 1,09

**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 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.

Waste transportation may be subject to ADR restrictions.

**CONTAMINATED PACKAGING**

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

## ISOBUTANE

Compliance with local regulations, e.g. incineration through flaring system.

No waste key number according to the European list of waste types can be assigned to this product, since this classification is based on the use (not yet determined) for which the product is intended for the consumer.

The key number for the waste must be determined according to the European waste type list (decision on the EU waste type list 2000/532 / EC) in collaboration with the disposal company / producer / authority Official.

## BUTANE

No waste key number according to the European list of waste types can be assigned to this product, since this classification is based on the use (not yet determined) for which the product is intended for the consumer.

The key number for the waste must be determined according to the European waste type list (decision on the EU waste type list 2000/532 / EC) in collaboration with the disposal company / producer / authority Official.

**SECTION 14. Transport information****14.1. UN number**

**ANTI MARTEN SPRAY**

ADR / RID, IMDG, 1950  
IATA:

**14.2. UN proper shipping name**

ADR / RID: AEROSOLS  
IMDG: AEROSOLS  
IATA: AEROSOLS, FLAMMABLE

**14.3. Transport hazard class(es)**

ADR / RID: Class: 2 Label: 2.1  
IMDG: Class: 2 Label: 2.1  
IATA: Class: 2 Label: 2.1



**14.4. Packing group**

ADR / RID, IMDG, -  
IATA:

**14.5. Environmental hazards**

ADR / RID: NO  
IMDG: NO  
IATA: NO

**14.6. Special precautions for user**

ADR / RID:	HIN - Kemler: --	Limited Quantities: 1 L	Tunnel restriction code: (D)
	Special Provision: -		
IMDG:	EMS: F-D, S-U	Limited Quantities: 1 L	
		Maximum quantity: 150 Kg	Packaging instructions: 203
IATA:	Cargo:	Maximum quantity: 75 Kg	Packaging instructions: 203
	Pass.:	A145, A167, A802	
	Special Instructions:		

**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: P3a

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

Product

Point 40

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:

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.

**15.2. Chemical safety assessment**

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

**SECTION 16. Other information**

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

<b>Flam. Gas 1A</b>	Flammable gas, category 1A
<b>Aerosol 1</b>	Aerosol, category 1
<b>Aerosol 3</b>	Aerosol, category 3
<b>Flam. Liq. 2</b>	Flammable liquid, category 2
<b>Press. Gas (Liq.)</b>	Liquefied gas
<b>Press. Gas</b>	Pressurised gas
<b>Asp. Tox. 1</b>	Aspiration hazard, category 1

## ANTI MARTEN SPRAY

<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>Aquatic Chronic 2</b>	Hazardous to the aquatic environment, chronic toxicity, category 2
<b>Aquatic Chronic 3</b>	Hazardous to the aquatic environment, chronic toxicity, category 3
<b>H220</b>	Extremely flammable gas.
<b>H222</b>	Extremely flammable aerosol.
<b>H229</b>	Pressurised container: may burst if heated.
<b>H225</b>	Highly flammable liquid and vapour.
<b>H280</b>	Contains gas under pressure; may burst if heated.
<b>H304</b>	May be fatal if swallowed and enters airways.
<b>H336</b>	May cause drowsiness or dizziness.
<b>H411</b>	Toxic to aquatic life with long lasting effects.
<b>H412</b>	Harmful to aquatic life with long lasting effects.
<b>EUH066</b>	Repeated exposure may cause skin dryness or cracking.

## 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)

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

- 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.

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.

Product's classification is based on the calculation methods set out in Annex I of the CLP Regulation, unless otherwise indicated in sections 11 and 12.

The data for evaluation of chemical-physical properties are reported in section 9.