Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH

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

1.1. Product identifier

Code: **DOMOCOMB-B-TIXO**
Product name **DOMOCOMB-B-TIXO**

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

Intended use **Adhesive for natural stones and ceramics**

Identified Uses	Industrial	Professional	Consumer
ADHESIVE SYSTEM/TREATMENT FOR STONE SECTOR	✓	✓	-

1.3. Details of the supplier of the safety data sheet

Name **TENAX SPA**
Full address **Via I Maggio, 226**
District and Country **37020 Volargne (VR)**
Italy
Tel. +39 045 6887593
Fax +39 045 6862456

e-mail address of the competent person responsible for the Safety Data Sheet **msds@tenax.it**

1.4. Emergency telephone number

For urgent inquiries refer to

Ireland
National Poisons Information Centre, Beaumont Hospital, PO Box 1297, Beaumont Road, Dublin 9
Members of the public: 01 809 2166 (8am to 10pm every day)
Healthcare professionals: 01 809 2566 or 01 837 9964 (24 hours)

Malta
112

0 800 314 7900 (Turkey) only, or +90 0312 433 70 01 - Toxicology Department and Poisons Centre
+98 21 6419306 / +98 21 6405569 - Poisons Information Centre (Tehran)
+91 484 4008056 - Poison Control Centre (South India)
(011) 642 2417 / (011) 488 3108 - Anti-Poison Centre (Johannesburg)

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 2020/878.
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:

Reproductive toxicity, category 2	H361f	Suspected of damaging fertility.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin sensitization, category 1A	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

SECTION 3. Composition/information on ingredients ... / >>

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

INDEX	*612-067-00-9*	5 ≤ x < 10	**Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1A H317, Aquatic Chronic 3 H412**
EC	*220-666-8*		**Skin Sens. 1A H317: ≥ 0,001%**
CAS	*2855-13-2*		**LD50 Oral: 1030 mg/kg**
REACH Reg.	*01-2119514687-32*		

REACTION PRODUCTS OF DI-, TRI- AND TETRA-PROPOXYLATED PROPANE-1,2-DIOL WITH AMMONIA

INDEX		1 ≤ x < 3	**Skin Corr. 1C H314, Eye Dam. 1 H318, Aquatic Chronic 3 H412**
EC	*618-561-0*		
CAS	*9046-10-0*		
REACH Reg.	*01-2119557899-12*		

BENZYL ALCOHOL

INDEX	*603-057-00-5*	1 ≤ x < 3,5	**Acute Tox. 4 H302, Acute Tox. 4 H332, Eye Irrit. 2 H319**
EC	*202-859-9*		**LD50 Oral: 1230 mg/kg, STA Inhalation vapours: 11 mg/l**
CAS	*100-51-6*		
REACH Reg.	*01-2119492630-38*		

3-AMINOPROPYLTRIETHOXYSILANE

INDEX	*612-108-00-0*	1 ≤ x < 3	**Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317**
EC	*213-048-4*		**LD50 Oral: 1490 mg/kg**
CAS	*919-30-2*		
REACH Reg.	*01-2119480479-24*		

N-(3-(TRIMETHOXYSILYL)PROPYL)ETHYLENEDIAMINE

INDEX		0,1 ≤ x < 0,15	**Eye Dam. 1 H318, STOT SE 3 H335, Skin Sens. 1 H317**
EC	*217-164-6*		
CAS	*1760-24-3*		
REACH Reg.	*01-2119970215-39*		

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 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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
Do not breathe combustion products.

Combustion products: COx and calcium fumes.

5.3. Advice for firefighters

GENERAL INFORMATION

SECTION 8. Exposure controls/personal protection ... / >>

ESP	España	Límites de exposición profesional para agentes químicos en España 2021
EST	Eesti	Ohtlike kemikaalide ja neid sisaldavate materjalide kasutamise töötervishoiu ja tööohutuse nõuded ning töökeskkonna keemiliste ohutegurite piirnormid [RT I, 17.10.2019, 1 - jõust. 17.01.2020]
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
FIN	Suomi	HTP-VÄRDEN 2020. Koncentrationer som befunnits skadliga. SOCIAL - OCH HÄLSOVÅRDSMINISTERIETS PUBLIKATIONER 2020:25
GRC	Ελλάδα	Π.Δ. 26/2020 (ΦΕΚ 50/Α` 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ "σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιγόνους παράγοντες κατά την εργασία"»
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnimkemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
IRL	Éire	2020 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations (2001-2015) and the Safety, Health and Welfare at Work (Carcinogens) Regulations (2001-2019)
LTU	Lietuva	Jsakymas dėl lietuvos higienos normos hn 23:2011 „cheminių medžiagų profesinio poveikio ribiniai dydžiai. Matavimo ir poveikio vertinimo bendrieji reikalavimai" patvirtinimo .
LVA	Latvija	Grozījumi Ministru kabineta 2007. gada 15. maija noteikumos Nr. 325 "Darba aizsardzības prasības saskarē ar ķīmiskajām vielām darba vietās" (prot. Nr. 32 18. §; prot. Nr. 1 22. §)
NOR	Norge	Forskrift om endring i forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks- og grenseverdier), 21. august 2018 nr. 1255
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum şi pentru modificarea şi completarea hotărârii guvernului nr. 1.093/2006
SWE	Sverige	Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1)
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 12. augusta 2020, ktorým sa mení a dopĺňa nariadenie vlády Slovenskej republiky č. 356/2006 Z. z. o ochrane zdravia zamestnancov pred rizikami súvisiacimi s expozíciou karcinogénnym a mutagénnym faktorom pri práci v znení neskorších predpisov
SVN	Slovenija	Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19)
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
	TLV-ACGIH	ACGIH 2022

CALCIUM CARBONATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	15				INHAL
MAK	AUS	6				RESP
VLEP	BEL	10				
AGW	DEU	10				INHAL
AGW	DEU	3				RESP
TLV	DNK	10				INHAL
TLV	DNK	5				RESP
VLA	ESP	10				
VLEP	FRA	10				INHAL
VLEP	FRA	5				RESP
HTP	FIN	10				INHAL
OELV	IRL	4				
NDS/NDSCh	POL	10				
WEL	GBR	4				

POLYETHYLENGLYCOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	CHE	1000				
VME/VLE	CHE	1000				
NPEL	SVK	1000				

SECTION 8. Exposure controls/personal protection ... / >>

BENZYL ALCOHOL

Threshold Limit Value

Type	Country	TWA/8h mg/m3	TWA/8h ppm	STEL/15min mg/m3	STEL/15min ppm	Remarks / Observations	
TLV	BGR	5					
MAK	CHE	22	5			SKIN	
VME/VLE	CHE	22	5			SKIN	
TLV	CZE	40	8,88	80	17,76		
AGW	DEU	22	5	44	10	SKIN	11
HTP	FIN	45	10				
RD	LTU	5				SKIN	
RV	LVA	5					
NDS/NDSCh	POL	240					
MV	SVN	22	5	44	10	SKIN	

Predicted no-effect concentration - PNEC

Normal value in fresh water	1	mg/l
Normal value in marine water	0,1	mg/l
Normal value for fresh water sediment	5,27	mg/kg
Normal value for marine water sediment	0,527	mg/kg
Normal value for water, intermittent release	2,3	mg/l
Normal value of STP microorganisms	39	mg/l
Normal value for the terrestrial compartment	0,45	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	20 mg/kg bw/d	VND	4 mg/kg bw/d				
Inhalation	VND	27 mg/m3	VND	5,4 mg/m3	VND	110 mg/m3	VND	22 mg/m3
Skin	VND	20 mg/kg bw/d	VND	4 mg/kg bw/d	VND	40 mg/kg bw/d	VND	8 mg/kg bw/d

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,06	mg/l
Normal value in marine water	0,006	mg/l
Normal value for fresh water sediment	5,784	mg/kg
Normal value for marine water sediment	0,578	mg/kg
Normal value for water, intermittent release	0,23	mg/l
Normal value of STP microorganisms	3,18	mg/l
Normal value for the terrestrial compartment	1,121	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,526 mg/kg/d				
Inhalation					20,1 mg/m3	20,1 mg/m3	0,073 mg/m3	

SECTION 8. Exposure controls/personal protection ... / >>

Glass fiber

Threshold Limit Value

Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m3	ppm	Remarks / Observations
VLEP	ITA	10				INHAL
VLEP	ITA	3				RESP

P-TERT-BUTYLPHENOL

Threshold Limit Value

Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m3	ppm	Remarks / Observations
AGW	DEU	0,5	0,08			

3-AMINOPROPYLTRIETHOXYSILANE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,33	mg/l
Normal value in marine water	0,033	mg/l
Normal value for fresh water sediment	0,26	mg/kg
Normal value for water, intermittent release	3,3	mg/l
Normal value of STP microorganisms	13	mg/l
Normal value for the terrestrial compartment	0,04	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers Acute local	Acute systemic	Chronic local	Chronic systemic	Effects on workers Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		5 mg/kg bw/d		5 mg/kg bw/d				
Inhalation		17,4 mg/m3		17 mg/m3		59 mg/m3		59 mg/m3
Skin		5 mg/kg bw/d		5 mg/kg bw/d		8,3 mg/kg bw/d		8,3 mg/kg bw/d

Siloxanes and Silicones, di-Me, reaction products with silica

Threshold Limit Value

Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m3	ppm	Remarks / Observations
MAK	AUS	4				INHAL
VLEP	BEL	10				INHAL
VLEP	BEL	3				RESP
MAK	CHE	4				
AGW	DEU	4				INHAL
VLA	ESP	10				INHAL
VLA	ESP	3				RESP
VLEP	FRA	10				INHAL
VLEP	FRA	5				RESP
HTP	FIN	5				
VLEP	ITA	10				INHAL
VLEP	ITA	3				RESP
OELV	IRL	2,4				RESP
TLV	NOR	1,5				RESP

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 ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

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.

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

9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU) 5,58 % - 78,18 g/litre

SECTION 10. Stability and reactivity

10.1. Reactivity

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

BENZYL ALCOHOL
Decomposes at temperatures above 870°C/1598°F.Possibility of explosion.

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.

BENZYL ALCOHOL
May react dangerously with: hydrobromic acid,iron,oxidising agents,sulphuric acid.Risk of explosion on contact with: phosphorus trichloride.
3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE
May react dangerously with: strong oxidising agents,concentrated inorganic acids.
REACTION PRODUCTS OF DI-, TRI- AND TETRA-PROPOXYLATED PROPANE-1,2-DIOL WITH AMMONIA
Heat development due to the action of acids.

10.4. Conditions to avoid

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

BENZYL ALCOHOL
Avoid exposure to: air,sources of heat,naked flames.
3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE
Avoid contact with: strong acids,strong oxidants.
REACTION PRODUCTS OF DI-, TRI- AND TETRA-PROPOXYLATED PROPANE-1,2-DIOL WITH AMMONIA
Temperature:> 60 ° C
Avoid all sources of ignition: heat, sparks, open flames.

10.5. Incompatible materials

BENZYL ALCOHOL
Incompatible with: sulphuric acid,oxidising substances,aluminium.
REACTION PRODUCTS OF DI-, TRI- AND TETRA-PROPOXYLATED PROPANE-1,2-DIOL WITH AMMONIA
acids

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

SECTION 11. Toxicological information ... / >>

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Suspected of damaging fertility

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

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

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

12.1. Toxicity

BENZYL ALCOHOL

LC50 - for Fish	460 mg/l/96h Pimephales promelas
EC50 - for Crustacea	230 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	770 mg/l/72h Pseudokirchneriella subcapitata
Chronic NOEC for Crustacea	51 mg/l Daphnia magna

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

LC50 - for Fish	110 mg/l/96h Leuciscus idus
EC50 - for Crustacea	23 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 50 mg/l/72h Scenedesmus subspicatus
EC10 for Algae / Aquatic Plants	11,2 mg/l/72h Scenedesmus subspicatus
Chronic NOEC for Crustacea	3 mg/l 21 d

REACTION PRODUCTS OF DI-, TRI- AND TETRA-PROPOXYLATED PROPANE-1,2-DIOL WITH AMMONIA

LC50 - for Fish	772 mg/l/96h Cyprinodon variegatus
EC50 - for Crustacea	80 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	15 mg/l/72h Pseudokirchneriella subcapitata
EC10 for Algae / Aquatic Plants	1,4 mg/l/72h Pseudokirchneriella subcapitata

METAXYLENDIAMINE

LC50 - for Fish	87,6 mg/l/96h oryzias latipes
EC50 - for Crustacea	15,2 mg/l/48h daphnia magna
EC50 - for Algae / Aquatic Plants	20,3 mg/l/72h selenastrum capricornutum
Chronic NOEC for Crustacea	4,7 mg/l 21d
Chronic NOEC for Algae / Aquatic Plants	10,5 mg/l 72 h

P-TERT-BUTYLPHENOL

LC50 - for Fish	5,14 mg/l/96h Pimephales promelas (Cavedano americano)
EC50 - for Crustacea	3,9 mg/l/48h Daphnia magna (Pulce d'acqua grande)
EC50 - for Algae / Aquatic Plants	11,2 mg/l/72h Scenedesmus subspicatus

3-AMINOPROPYLTRIETHOXYSILANE

LC50 - for Fish	> 934 mg/l/96h Brachydanio rerio
EC50 - for Crustacea	331 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 1000 mg/l/72h Desmodesmus subspicatus

SECTION 13. Disposal considerations ... / >>

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.

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA: 2735

14.2. UN proper shipping name

ADR / RID: AMINES, LIQUID, CORROSIVE, N.O.S.(METAXYLENDIAMINE; 3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE)
IMDG: AMINES, LIQUID, CORROSIVE, N.O.S. (METAXYLENDIAMINE; 3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE; P-TERT-BUTYLPHENOL)
IATA: AMINES, LIQUID, CORROSIVE, N.O.S.(METAXYLENDIAMINE; 3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE)

14.3. Transport hazard class(es)

ADR / RID: Class: 8 Label: 8



IMDG: Class: 8 Label: 8



IATA: Class: 8 Label: 8



14.4. Packing group

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous



IMDG: Marine Pollutant



IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 80 Special provision: 274	Limited Quantities: 1 L	Tunnel restriction code: (E)
IMDG:	EMS: F-A, S-B	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 30 L	Packaging instructions: 855
	Passengers:	Maximum quantity: 1 L	Packaging instructions: 851
	Special provision:	A3, A803	

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 16. Other information ... / >>

H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 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: 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: Regulation (EC) 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: Time-weighted average exposure limit
- TWA STEL: Short-term 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) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) 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) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII 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