Safety data sheet (English translation without any country-specific legislation)
according to Regulation (EC) No 1907/2006, Article 31

Printing date 20.03.2025 Rev. 7 (replaces version 6) Revision: 20.03.2025

*

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

· **1.1 Product identifier**
· **Trade name: X-ACTIVATOR**

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
Ready-to-use liquid membrane in aqueous dispersion.

· **Application of the substance / the mixture** Primer

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Litokol Lab S.p.A.
Via G.Falcone, 13/1
42048 Rubiera (RE) - Italia
Tel. +39 0522 626391 - Fax. +39 0522 620150

· **Further information obtainable from:** Litokol Lab S.p.A. - Email: productsafety@litokol.com

· **1.4 Emergency telephone number:**
ITALY - POISONS CENTRES (24h / 365d):
• Milano - Azienda Ospedaliera Niguarda Ca' Granda - Tel. +39 02 66101029
• Pavia - Centro Nazionale d'Informazione Tossicologica - IRCCS Fondazione Salvatore Maugeri Clinica del Lavoro e della riabilitazione - Tel. +39 0382 24444
• Firenze - Azienda Ospedaliera Universitaria "Careggi" U.O. Tossicologia Medica - Tel. +39 055 7947819
• Bergamo - Azienda Ospedaliera "Papa Giovanni XXIII", tossicologia clinica - Tel. +39 800 883300
• Roma - CAV Policlinico "Umberto I", PRGM tossicologia d'urgenza - Tel. +39 06 49978000
• Roma - CAV del Policlinico "Agostino Gemelli", Servizio di tossicologia clinica - Tel. +39 06 3054343
• Roma - CAV "Ospedale Pediatrico Bambino Gesù", dipartimento emergenza e accettazione DEA - Tel. +39 06 68593726
• Foggia - Azienda Ospedaliera Universitaria riuniti, Foggia - Tel. +39 800 183459
• Napoli - Azienda Ospedaliera "Antonio Cardarelli", III Servizio di anestesia e rianimazione - Tel. +39 081 5453333
• Verona - CAV dell'Azienda ospedaliera integrata (AOUI) di Verona sede di Borgo Trento - Tel. +39 800 011858

Litokol Lab S.p.A.
Technical support: Tel. +39 0522 622852 (Monday - Friday: 8.30-12.30 AM , 2.00-6.00 PM)

*

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**
The product is not classified, according to the CLP regulation.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008** Void
· **Hazard pictograms** Void
· **Signal word** Void
· **Hazard statements** Void
· **Additional information:**
The product is identified as a treated article pursuant to Regulation (EU) no. 528/2012 (Art. 58). Contains biocidal products: C(M)IT/MIT (3:1)
EUH208 Contains reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1) [C(M)IT/CIT (3:1)], 2-methyl-2H-isothiazol-3-one [MIT], 1,2-benzisothiazol-3(2H)-one [BIT]. May produce an allergic reaction.
EUH210 Safety data sheet available on request.

· **2.3 Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** The mixture does not contain substances that pose such a hazard at concentrations >0.1%.
· **vPvB:** The mixture does not contain substances that pose such a hazard at concentrations >0.1%.
· **Determination of endocrine-disrupting properties**
The mixture does not contain substances that pose such a hazard at concentrations >0.1%.

*

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**
· **Description:** Mixture consisting of the following components:

(Contd. on page 2)

Safety data sheet (English translation without any country-specific legislation)
according to Regulation (EC) No 1907/2006, Article 31

Printing date 20.03.2025 Rev. 7 (replaces version 6) Revision: 20.03.2025

Trade name: X-ACTIVATOR

(Contd. of page 1)

· **Dangerous components:**

CAS: 2634-33-5 EINECS: 220-120-9 Index number: 613-088-00-6 Reg.nr.: 01-2120761540-60-XXXX	1,2-benzisothiazol-3(2H)-one [BIT] Acute Tox. 2, H330; Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=1); Aquatic Chronic 1, H410 (M=1); Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1A, H317 ATE: LD50 oral: 450 mg/kg LC50 / 4h inhalative: 0.21 mg/l Specific concentration limit: Skin Sens. 1; H317: C ≥ 0.036 %	<0.036%
CAS: 55965-84-9 Index number: 613-167-00-5 Reg.nr.: 01-2120764691-48-XXXX	reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1) [C(M)IT/CIT (3:1)] Acute Tox. 3, H301; Acute Tox. 2, H310; Acute Tox. 2, H330; Skin Corr. 1C, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100); Skin Sens. 1A, H317, EUH071 Note: B Specific concentration limits: Skin Corr. 1C; H314: C ≥ 0.6 % Skin Irrit. 2; H315: 0.06 % ≤ C < 0.6 % Eye Dam. 1; H318: C ≥ 0.6 % Eye Irrit. 2; H319: 0.06 % ≤ C < 0.6 % Skin Sens. 1A; H317: C ≥ 0.0015 %	<0.0015%
CAS: 2682-20-4 EINECS: 220-239-6 Index number: 613-326-00-9 Reg.nr.: 01-2120764690-50-XXXX	2-methyl-2H-isothiazol-3-one [MIT] Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 2, H330; Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=1); Skin Sens. 1A, H317, EUH071 ATE: LD50 oral: 100 mg/kg LD50 dermal: 300 mg/kg LC50 / 4h inhalative: 0.05 mg/l Specific concentration limit: Skin Sens. 1A; H317: C ≥ 0.0015 %	<0.0015%

· **Additional information:**
For the wording of the listed hazard phrases refer to section 16.
If no ATE values are present, refer to LD/LC50 values in section 11.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· **General information:** No special measures required.
· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:**
Generally the product does not irritate the skin.
Immediately wash with water and soap and rinse thoroughly.
· **After eye contact:**
Rinse opened eye for several minutes under running water.
Do not rub the eyes to avoid possible damage to the cornea caused by rubbing.
· **After swallowing:** Do not induce vomiting; call for medical help immediately.

· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

*

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:**
Use fire extinguishing methods suitable to surrounding conditions.
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.

· **5.3 Advice for firefighters**
· **Protective equipment:**
Do not inhale explosion gases or combustion gases.
Wear fully protective suit.
Wear self-contained respiratory protective device.

(Contd. on page 3)

Safety data sheet (English translation without any country-specific legislation)
according to Regulation (EC) No 1907/2006, Article 31

Printing date 20.03.2025 Rev. 7 (replaces version 6) Revision: 20.03.2025

Trade name: X-ACTIVATOR

(Contd. of page 2)

· **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**
Pick up mechanically.
Clean the affected area carefully; suitable cleaners are:
Warm water and cleansing agent

· **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**
Keep receptacles tightly sealed.
Keep away from heat and direct sunlight.
· **Information about fire - and explosion protection:**
The product is not flammable.
No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** Store in a cool location.
· **Information about storage in one common storage facility:**
Store away from water.
Do not store together with acids.
· **Further information about storage conditions:** Protect from frost.

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**	
CAS: 2634-33-5 1,2-benzisothiazol-3(2H)-one [BIT]	
MAK (Germany)	vgl.Abschn.IIb und Xc
CAS: 55965-84-9 reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1) [C(M)IT/CIT (3:1)]	
MAK (Germany)	Long-term value: 0.2E mg/m³ vgl.Abschn.Xc
CAS: 2682-20-4 2-methyl-2H-isothiazol-3-one [MIT]	
MAK (Germany)	vgl. Abschn. IIb und Xc

· **Regulatory information** MAK (Germany): MAK- und BAT-Liste

· **DNELs**		
CAS: 2634-33-5 1,2-benzisothiazol-3(2H)-one [BIT]		
Dermal	DNEL / Long term exposure - Systemic effects	0.345 mg/Kg bw/d (general population) 0.966 mg/Kg bw/d (workers)
Inhalative	DNEL / Long term exposure - Systemic effects	1.2 mg/m³ (general population) 6.81 mg/m³ (workers)
CAS: 55965-84-9 reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1) [C(M)IT/CIT (3:1)]		
Oral	DNEL / Long term exposure - Systemic effects DNEL / Short term exposure - Systemic effects	0.09 mg/Kg bw/d (general population) 0.11 mg/Kg (general population)

(Contd. on page 4)

Safety data sheet (English translation without any country-specific legislation)
according to Regulation (EC) No 1907/2006, Article 31

Printing date 20.03.2025 Rev. 7 (replaces version 6) Revision: 20.03.2025

Trade name: X-ACTIVATOR

(Contd. of page 3)

Inhalative	DNEL / Long term exposure - Local effects	0.02 mg/m³ (general population)
		0.02 mg/m³ (workers)
	DNEL / Short term exposure - Local effects	0.04 mg/m³ (general population)
		0.04 mg/m³ (workers)

· **PNECs**

CAS: 2634-33-5 1,2-benzisothiazol-3(2H)-one [BIT]	
PNEC / water	0.00403 mg/l (freshwater)
	0.0011 mg/l (Intermittent releases (freshwater))
	0.00011 mg/l (Intermittent releases (marine water))
	0.000403 mg/l (marine water)
PNEC / sediment	0.0499 mg/Kg dw (freshwater)
	0.00499 mg/Kg dw (marine water)
PNEC / soil	3 mg/Kg dw
PNEC / STP	1.03 mg/l (sewage treatment plant)

CAS: 55965-84-9 reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3: 1) [C(M)IT/CIT (3:1)]	
PNEC / water	0.00339 mg/l (freshwater)
	0.00339 mg/l (intermittent releases)
	0.00339 mg/l (marine water)
PNEC / sediment	0.027 mg/Kg dw (freshwater)
	0.027 mg/Kg dw (marine water)
PNEC / soil	0.01 mg/Kg dw
PNEC / STP	0.23 mg/l (sewage treatment plant)

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**
· **Appropriate engineering controls** No further data; see section 7.
· **Individual protection measures, such as personal protective equipment**
· **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
Do not eat or drink while working.
Avoid contact with the eyes and skin.
Wash hands before breaks and at the end of work.

· **Respiratory protection:** Not necessary if room is well-ventilated.

· **Hand protection**
Preventive skin protection by use of:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
Rubber gloves
Butyl rubber, BR
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
· **Eye/face protection** Not required.

*
SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**
· **General Information**

· **Physical state**	Solid
· **Colour:**	Green
· **Odour:**	Characteristic
· **Odour threshold:**	Not determined.
· **Melting point/freezing point:**	Undetermined.
· **Boiling point or initial boiling point and boiling range**	100 °C

(Contd. on page 5)

Safety data sheet (English translation without any country-specific legislation)
according to Regulation (EC) No 1907/2006, Article 31

Printing date 20.03.2025 Rev. 7 (replaces version 6) Revision: 20.03.2025

Trade name: X-ACTIVATOR

(Contd. of page 4)

· **Flammability**	Non-flammable mixture
· **Lower and upper explosion limit**	
· **Lower:**	Not applicable. Non-flammable mixture
· **Upper:**	Not applicable. Non-flammable mixture
· **Flash point:**	Not applicable.
· **Auto-ignition temperature:**	Not applicable. Non-flammable mixture
· **Decomposition temperature:**	Not applicable. Mixture is not self-reactive, does not contail organic peroxide and does not decompose under foreseen conditions of use
· **pH at 20 °C**	7.5-8.5 (sol.20%)
· **Viscosity:**	
· **Kinematic viscosity**	Not applicable.
· **Solubility**	
· **water:**	Soluble.
· **Partition coefficient n-octanol/water (log value)**	Not applicable. The product is a mixture
· **Vapour pressure:**	Not applicable.
· **Density and/or relative density**	
· **Density at 20 °C:**	1.5-1.6 g/cm³
· **Relative gas density**	Not applicable.
· **Particle characteristics**	Main particle size: 30-100 µm
· **9.2 Other information**	
· **Appearance:**	
· **Form:**	Pasty
· **Important information on protection of health and environment, and on safety.**	
· **Ignition temperature:**	Product is not selfigniting.
· **Explosive properties:**	Product does not present an explosion hazard.
· **Change in condition**	
· **Evaporation rate**	Not applicable.
· **Information with regard to physical hazard classes**	Void

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.

· **10.2 Chemical stability**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
No decomposition if used according to specifications.

· **10.3 Possibility of hazardous reactions** No dangerous reactions known.

· **10.4 Conditions to avoid** Protect from humidity and water.

· **10.5 Incompatible materials:** Do not store together with acids.

· **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

· **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**		
CAS: 2634-33-5 1,2-benzisothiazol-3(2H)-one [BIT]		
Oral	LD50	450 mg/kg (ATE)
Dermal	LD50	>2,000 mg/kg (rat) (OECD TG 402: Acute Dermal Toxicity)
Inhalative	LC50 / 4h	0.21 mg/l (ATE)

(Contd. on page 6)

Safety data sheet (English translation without any country-specific legislation)
according to Regulation (EC) No 1907/2006, Article 31

Printing date 20.03.2025 Rev. 7 (replaces version 6) Revision: 20.03.2025

Trade name: X-ACTIVATOR

(Contd. of page 5)

CAS: 55965-84-9 reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3: 1) [C(M)IT/CIT (3:1)]		
Oral	LD50	66 mg/kg (rat) (OECD TG 401: Acute Oral Toxicity)
Dermal	LD50	87.12 mg/kg (rabbit)
Inhalative	LC50 / 4h	0.171 mg/l (rat) (OECD TG 403: Acute Inhalation Toxicity)
CAS: 2682-20-4 2-methyl-2H-isothiazol-3-one [MIT]		
Oral	LD50	100 mg/kg (ATE)
Dermal	LD50	300 mg/kg (ATE)
Inhalative	LC50 / 4h	0.05 mg/l (ATE)

· **Primary irritant effect:**
· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
· **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity** Based on available data, the classification criteria are not met.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **STOT-single exposure** Based on available data, the classification criteria are not met.
· **STOT-repeated exposure** Based on available data, the classification criteria are not met.
· **Aspiration hazard** Based on available data, the classification criteria are not met.

· **11.2 Information on other hazards**

· **Endocrine disrupting properties**
None of the ingredients is listed.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**	
CAS: 2634-33-5 1,2-benzisothiazol-3(2H)-one [BIT]	
EC50 / 48h	2.9 mg/l (crustacea - Daphnia magna) (OECD TG 202: Daphnia sp. Acute Immobilisation Test)
LC50 / 96h	2.15 mg/l (fish - Oncorhyncus mykiss) (OECD TG 203: Fish, Acute Toxicity Test)
EC50 / 72h	0.11 mg/l (algae - Pseudokirchneriella subcapitata) (OECD TG 201: Alga, Growth Inhibition Test)
NOEC / 72h	0.0403 mg/l (algae - Scenedesmus capricornutum) (OECD TG 201: Alga, Growth Inhibition Test)
CAS: 55965-84-9 reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3: 1) [C(M)IT/CIT (3:1)]	
EC50 / 48h	0.16 mg/l (crustacea - Daphnia magna)
LC50 / 96h	0.19 mg/l (fish - Oncorhyncus mykiss)
EC50 / 72h	0.037 mg/l (algae) (OECD TG 201: Alga, Growth Inhibition Test)
NOEC	≥0.0464 mg/l /35 d (fish - Brachydanio rerio) (OECD TG 210: Fish, Early-Life Stage Toxicity Test)
NOEC / 21d	0.0111 mg/l (crustacea - Daphnia magna) (OECD TG 211: Daphnia magna Reproduction Test)
NOEC / 72h	0.004 mg/l (algae) (OECD TG 201: Alga, Growth Inhibition Test)

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential**	
CAS: 2634-33-5 1,2-benzisothiazol-3(2H)-one [BIT]	
BCF	6.62

· **12.4 Mobility in soil** No further relevant information available.

· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

· **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.

· **12.7 Other adverse effects**
· **Additional ecological information:**
· **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

(Contd. on page 7)

Safety data sheet (English translation without any country-specific legislation)
according to Regulation (EC) No 1907/2006, Article 31

Printing date 20.03.2025 Rev. 7 (replaces version 6) Revision: 20.03.2025

Trade name: X-ACTIVATOR

(Contd. of page 6)

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· **Recommendation** Disposal must be made according to official regulations.

· **Uncleaned packaging:**
· **Recommendation:**
Packagings that may not be cleansed are to be disposed of in the same manner as the product.
Disposal must be made according to official regulations.

SECTION 14: Transport information

· **14.1 UN number or ID number**	
· **ADR/RID/ADN, ADN, IMDG, IATA**	Void
· **14.2 UN proper shipping name**	
· **ADR/RID/ADN, ADN, IMDG, IATA**	Void
· **14.3 Transport hazard class(es)**	
· **ADR/RID/ADN, ADN, IMDG, IATA**	
· **Class**	Void
· **14.4 Packing group**	
· **ADR/RID/ADN, IMDG, IATA**	Void
· **14.5 Environmental hazards:**	
· **Marine pollutant:**	No
· **14.6 Special precautions for user**	Not applicable.
· **14.7 Maritime transport in bulk according to IMO instruments**	Not applicable.
· **UN "Model Regulation":**	Void

SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
Regulation (EC) No 1907/2006 (REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals)
Regulation (EC) No 1272/2008 (CLP - Classification, Labelling and Packaging of substances and mixtures)
Compilation of Safety Data Sheet: Reg.UE n. 878/2020 (amending Reg.EC n.1907/2006, Annex II)
The product is identified as a treated article pursuant to Regulation (EU) no. 528/2012 (Art. 58).

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **REGULATION (EC) No 273/2004 on drug precursors**
None of the ingredients is listed.

· **REGULATION (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**
None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**
None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**
None of the ingredients is listed.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

*
SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**
H301 Toxic if swallowed.
H302 Harmful if swallowed.

(Contd. on page 8)

Safety data sheet (English translation without any country-specific legislation)
according to Regulation (EC) No 1907/2006, Article 31

Printing date 20.03.2025 Rev. 7 (replaces version 6) Revision: 20.03.2025

Trade name: X-ACTIVATOR

(Contd. of page 7)

H310 Fatal in contact with skin.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
EUH071 Corrosive to the respiratory tract.

· **Contact:** Litokol Lab S.p.A.
· **Version number of previous version:** 6
· **Abbreviations and acronyms:**
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
CLP: Classification, Labelling and Packaging
TLV: Threshold Limit Value
TLV-TWA: Threshold Limit Value - Time Weighted Average
TLV-STEL: Threshold Limit Value - Short Term Exposure Limit
PEL: Permissible Exposure Limits (Limiti di esposizione consentiti)
REL: Recommended Exposure Limits (Limiti di esposizione raccomandati)
IOELV: Indicative Occupational Exposure Limit Value
WEELs: Workplace Environmental Exposure Limits (Limiti di esposizione ambientale sul posto di lavoro)
BEI: Biological Exposure Indices
LC50: Lethal Concentration, 50 percent
EC50: Effective Concentration, 50 percent
ErC50: Effective Concentration, 50 percent, reduction of growth rate
NOEC: No-Observed Effect Concentration
NOELR: No-Observed Effect Loading Rate
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 2: Acute toxicity – Category 2
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Corr. 1C: Skin corrosion/irritation – Category 1C
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1A: Skin sensitisation – Category 1A
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

· ***** Data compared to the previous version altered.**