

SECTION 1. Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product name	ALL in ONE DETERGENT TABLETS FOR DISHWASHERS
Model:	LDT2030
Code:	35602032
EAN:	8016361971059
UFI :	RQ10-208M-W003-W38W

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

Intended use	Detergent tabs for dishes
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1.3. Details of the supplier of the safety data sheet

Name	Candy Hoover Group S.r.l.
Full address	Via Comolli, 16 - 20861 Brugherio (MB) - Italy
Telephone number	+39 039 20861
e-mail address of the competent person responsible for the Safety Data Sheet	sds@dgsasrl.it

1.4. Emergency telephone number

For urgent inquiries refer to	ENGLAND, SCOTLAND (NHS 24) WALES (NHS Direct Wales) - For medical advice contact 111
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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:

Eye irritation, category 2	H319	Causes serious eye irritation.
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2.2. Label elements

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

Hazard pictograms:



Signal words:	Warning
Hazard statements:	
H319	Causes serious eye irritation.
EUH208	Contains: Subtilisin. May produce an allergic reaction.
Precautionary statements:	
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.
P337+P313	If eye irritation persists: Get medical advice / attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Contains:	disodium carbonate-hydrogen peroxide (2:3)

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

Less than 5%	Phosphonates, Non-ionic surfactants, Polycarboxylates.
5% or over but less than 15%	Oxygen-based bleaching agents.
Enzymes, Perfumes	

2.3. Other hazards

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

The product does not contain substances with endocrine disrupting properties in concentration \geq 0.1%.

SECTION 3. Composition/information on ingredients**3.2. Mixtures**

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
SODIUM CARBONATE		
INDEX 011-005-00-2	$32,5 \leq x < 35$	Eye Irrit. 2 H319
EC 207-838-8		

CAS 497-19-8

disodium carbonate—hydrogen peroxide (2:3)INDEX - $12 \leq x < 13,5$ Ox. Liq. 2 H272, Acute Tox. 4 H302, Eye Dam. 1 H318
LD50 Oral: 893 mg/kg

EC 239-707-6

CAS 15630-89-4

2-propelleptanol, EthospropoxylateINDEX - $4 \leq x < 4,5$ Eye Irrit. 2 H319, Skin Irrit. 2 H315

EC 605-450-7

CAS 166736-08-9

REACH Reg. 02-2119630747-33

tetrasodium (1-hydroxyethane-1,1-diyl)bis(phosphonate)INDEX - $2 \leq x < 2,5$ Acute Tox. 4 H302, Eye Irrit. 2 H319

EC 223-267-7

CAS 3794-83-0

sodium silicateINDEX - $2 \leq x < 2,5$ Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335

EC 215-687-4

CAS 1344-09-8

zinc sulfate heptahydrateINDEX 030-006-00-9 $0,1 \leq x < 0,2$ Acute Tox. 4 H302, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1

EC 231-793-3

CAS 7446-20-0

REACH Reg. 01-2119474684-27

SubtilisinINDEX 647-012-00-8 $0,1 \leq x < 0,2$ Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335, Resp. Sens. 1B H334,

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

EC 232-752-2

CAS 9014-01-1

REACH Reg. 01-2119480434-38

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

SECTION 4. First aid measures**4.1. Description of first aid measures**

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

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

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

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

Information not available

SECTION 5. Firefighting measures**5.1. Extinguishing media**

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health.

Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-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**

If there are no contraindications, spray powder with water to prevent the formation of dust.

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

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Collect the leaked product and place it in containers for recovery or disposal. If there are no contraindications, use jets of water to eliminate product residues.

Make sure the leakage site is well aired. Evaluate the compatibility of the container to be used, by checking section 10. 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**

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

Storage class TRGS 510 (Germany):11

7.3. Specific end use(s)

See Subsection 1.2

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

Regulatory References:

ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.

SODIUM CARBONATE**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	ROU	1		3		

disodium carbonate—hydrogen peroxide (2:3)

Predicted no-effect concentration - PNEC

Normal value in fresh water	35	µg/L
Normal value in marine water	35	µg/L
Normal value for fresh water sediment	NEA	
Normal value for marine water sediment	NEA	
Normal value for marine water, intermittent release	35	µg/L
Normal value of STP microorganisms	16,24	mg/l
Normal value for the food chain (secondary poisoning)	NPI	
Normal value for the terrestrial compartment	NEA	
Normal value for the atmosphere	NPI	

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
Inhalation		NPI		NPI			5 mg/m3	NPI
Skin	6,4 mg/cm2	NPI	6,4 mg/cm2	NPI	12,8 mg/cm2	NPI	12,8 mg/cm2	NPI

sodium silicate

Predicted no-effect concentration - PNEC

CARE+PROTECT _ ALL in ONE Dishwashing Detergent Tabs

Normal value in fresh water	7,5	mg/l
Normal value in marine water	1	mg/l
Normal value for fresh water sediment	NPI	
Normal value for marine water sediment	NPI	
Normal value for marine water, intermittent release	7,5	mg/l
Normal value of STP microorganisms	348	mg/l
Normal value for the food chain (secondary poisoning)	NEA	
Normal value for the terrestrial compartment	NPI	
Normal value for the atmosphere	NPI	

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		NPI		800 µg/kg bw/d				
Inhalation	MED	NPI	MED	1,38 mg/m ³	MED	NPI	MED	5,61 mg/m ³
Skin	MED	NPI	MED	800 µg/kg bw/d	MED	NPI	MED	1,59 mg/kg bw/d

tetrasodium (1-hydroxyethane-1,1-diyl)bis(phosphonate)

Predicted no-effect concentration - PNEC

Normal value in fresh water	96,3	µg/L
Normal value in marine water	9,63	µg/L
Normal value for fresh water sediment	193	mg/kg/d
Normal value for marine water sediment	19,3	mg/kg/d
Normal value of STP microorganisms	58	mg/l
Normal value for the food chain (secondary poisoning)	5,3	mg/kg
Normal value for the terrestrial compartment	14	mg/kg/d
Normal value for the atmosphere	NPI	

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		NPI		2,4 mg/kg bw/d				
Inhalation	NPI	NPI	10 mg/m ³	4,2 mg/m ³	NPI	NPI	10 mg/m ³	26,9 mg/m ³
Skin	NPI	NPI	NPI	24 mg/kg bw/d	NPI	NPI	NPI	48 mg/kg bw/d

Subtilisin**Threshold Limit Value**

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m ³	ppm	
OEL	EU		30	

Predicted no-effect concentration - PNEC

Normal value in fresh water	1,7	µg/L
Normal value in marine water	170	ng/L
Normal value for fresh water sediment	NEA	
Normal value for marine water sediment	NEA	
Normal value for water, intermittent release	900	ng/L
Normal value of STP microorganisms	65	mg/l
Normal value for the food chain (secondary poisoning)	NPI	
Normal value for the terrestrial compartment	568	µg/kg
Normal value for the atmosphere	NPI	

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		17,28 mg/kg bw/d		2,86 mg/kg bw/d				
Inhalation	NPI	NPI	60 60 ng/m ³	NPI	NPI	NPI	15 60 ng/m ³	NPI
Skin	LOW	NPI	LOW	NPI	LOW	NPI	LOW	NPI

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

In the case of prolonged contact with the product, protect the hands with penetration-resistant work gloves (see standard EN 374).

Work glove material must be chosen according to the use process and the products that may form. Latex gloves may cause sensitivity reactions.

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

None required, unless indicated otherwise in the chemical risk assessment.

ENVIRONMENTAL EXPOSURE CONTROLS

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

SECTION 9. Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Properties	Value	Information
Appearance	solid	
Colour	Blue-White-Yellow	
Odour	Lemon	
Melting point / freezing point	not available	
Initial boiling point	not applicable	
Flammability	not flammable	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	not applicable	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	10,3-11,3	
Kinematic viscosity	not available	
Solubility	not available	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	1,41	
Relative vapour density	not available	
Particle characteristics	not available	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Information not available

SECTION 10. Stability and reactivity**10.1. Reactivity**

Information not available

10.2. Chemical stability

Information not available

10.3. Possibility of hazardous reactions

The product may react violently with water.

10.4. Conditions to avoid

Avoid overheating. Prevent moisture or water from penetrating inside the containers.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information**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

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture:

Not classified (no significant component)

ATE (Oral) of the mixture:

>2000 mg/kg

ATE (Dermal) of the mixture:

Not classified (no significant component)

SODIUM CARBONATE

LD50 (Dermal):

117 mg/kg Mouse

LD50 (Oral):

4090 mg/kg Rat

LC50 (Inhalation mists/powders):

2,3 mg/l/2h Rat

disodium carbonate—hydrogen peroxide (2:3)

LD50 (Dermal):

2000 mg/kg Rabbit

LD50 (Oral):

893 mg/kg Rat

2-propelleptanol, Ethospropoxylate

LD50 (Oral):

> 2000 mg/kg

sodium silicate

LD50 (Dermal):

5000 mg/kg Rat

LD50 (Oral):

3400 mg/kg Rat

LC50 (Inhalation vapours):

2,06 mg/l/4h Rat

tetrasodium (1-hydroxyethane-1,1-diyl)bis(phosphonate)

LD50 (Dermal):

5000 mg/kg (rabbit)

LD50 (Oral):

2850 mg/kg (Rat)

STA (Oral):

500 mg/kg estimate from table 3.1.2 of Annex I of the CLP

(figure used for calculation of the acute toxicity estimate of the mixture)

Subtilisin

LD50 (Dermal):

2 mg/kg

LD50 (Oral):

1728 mg/kg

LC50 (Inhalation vapours):

0,8 mg/l/4h

zinc sulfate heptahydrate

LD50 (Oral):

1260 mg/kg (rat)

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.

Contains: Subtilisin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

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**12.1. Toxicity**

Subtilisin

LC50 - for Fish > 8,2 mg/l/96h

2-propelleptanol, Ethospropoxylate

LC50 - for Fish > 10 mg/l/96h

EC50 - for Crustacea > 10 mg/l/48h

EC50 - for Algae / Aquatic Plants > 10 mg/l/72h

EC10 for Algae / Aquatic Plants > 1 mg/l/72h

disodium carbonate—hydrogen peroxide (2:3)

EC50 - for Crustacea 4,9 mg/l/48h

Chronic NOEC for Crustacea 2 mg/l

sodium silicate

EC50 - for Crustacea 100 mg/l/48h

EC50 - for Algae / Aquatic Plants 35 mg/l/72h

Chronic NOEC for Fish 348 mg/l

tetrasodium (1-hydroxyethane-1,1-diyl)bis(phosphonate)

EC50 - for Crustacea 578 mg/l/48h

Chronic NOEC for Crustacea 6,75 mg/l

zinc sulfate heptahydrate

LC50 - for Fish 0,8 mg/l/96h (Pimephales promelas)

12.2. Persistence and degradability

SODIUM CARBONATE

Solubility in water 1000 - 10000 mg/l

Degradability: information not available

Subtilisin

Solubility in water 125 g/l

Rapidly degradable

sodium silicate

Solubility in water 115 mg/l

tetrasodium (1-hydroxyethane-1,1-diyl)bis(phosphonate)

Solubility in water 774 g/l

12.3. Bioaccumulative potential

Subtilisin

Partition coefficient: n-octanol/water -1,3 Log Kow

tetrasodium (1-hydroxyethane-1,1-diyl)bis(phosphonate)

Partition coefficient: n-octanol/water -3 Log Kow

12.4. Mobility in soil

tetrasodium (1-hydroxyethane-1,1-diyl)bis(phosphonate)

Partition coefficient: soil/water 4,22 l/kg

12.5. Results of PBT and vPvB assessmentOn the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations**13.1. Waste treatment methods**

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

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

CONTAMINATED PACKAGING

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

SECTION 14. Transport information

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

14.1. UN number or ID number

not applicable

14.2. UN proper shipping name

not applicable

14.3. Transport hazard class(es)

not applicable

14.4. Packing group

not applicable

14.5. Environmental hazards

not applicable

14.6. Special precautions for user

not applicable

14.7. Maritime transport in bulk according to IMO instruments

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/EU: None

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

Contained substance:

Point	75	zinc sulfate heptahydrate REACH Reg.: 01-2119474684-27
Point	75	Subtilisin REACH Reg.: 01-2119480434-38
Point	75	SODIUM CARBONATE

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

not applicable

Substances in Candidate List (Art. 59 REACH)

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

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 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.

Regulation (EC) No. 648/2004

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

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 2: Hazard to waters

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

This Safety Data Sheet has been drawn up on the basis of the information contained in the SDS (Rev.2 of 05/04/2021) of the Supplier of the mixture

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

Ox. Liq. 2	Oxidising liquid, category 2
Acute Tox. 4	Acute toxicity, category 4
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Resp. Sens. 1B	Respiratory sensitization, category 1B
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
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

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

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.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:

The following sections were modified:

01 / 02 / 03.