

UNOX

UNOX S.p.A.

DET & RINSE ULTRAPLUS

Revision n. 1
Dated 16/01/2023
Printed on 16/01/2023
Page n. 1/13

Safety Data Sheet

According to Annex II to REACH - Regulation 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:
Product name:
UFI:

DB1075A0, DB1076A0, DB1077A0
DET & RINSE ULTRAPLUS
0800-F0SH-V008-NU18

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

Intended use

Oven cleaner (EUPCS: PC-CLN-10.4).

Identified Uses

Industrial	Professional	Consumer
Transfer to a container through a dedicated line (bottle/machine)	- ERC: 8a. PROC: 8b. PC: 35. LCS: PW.	-

Uses Advised Against

Any use other than those identified.

1.3. Details of the supplier of the safety data sheet

Name
Full address
District and Country

Unox S.p.A.
Via Majorana, 22
35010 Cadoneghe (Padova)
Italia

tel. +39 049 86 57 511
fax +39 049 86 57 555

e-mail address of the competent person responsible for the Safety Data Sheet

det.rinse@unox.com

1.4. Emergency telephone number

For urgent inquiries refer to

3E
Tel. (+)1-760-476-3961
Tel. (+)0-800-680-0425 (UK)
Access code: 334577
24h/24h

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:

Substance or mixture corrosive to metals, category 1	H290	May be corrosive to metals.
Skin corrosion, category 1A	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.

2.2. Label elements

UNOX

UNOX S.p.A.

DET & RINSE ULTRAPLUS

Revision n. 1
Dated 16/01/2023
Printed on 16/01/2023
Page n. 2/13

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

Hazard pictograms:

Signal words:

Danger

Hazard statements:

H290
H314

May be corrosive to metals.
Causes severe skin burns and eye damage.

Precautionary statements:

P280
P301+P330+P331
P303+P361+P353
P305+P351+P338

Wear protective gloves / protective clothing / eye protection / face protection.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310
P390
P501

Immediately call a POISON CENTER.
Absorb spillage to prevent material damage.
Dispose of contents / container in accordance with local regulations.

Contains:

SODIUM HYDROXIDE

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

Less than 5%

anionic surfactants, amphoteric surfactants, polycarboxylates, phosphonates

2.3. Other hazards

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

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

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
SODIUM HYDROXIDE		
CAS 1310-73-2	15 ≤ x < 25	Met. Corr. 1 H290, Skin Corr. 1A H314, Eye Dam. 1 H318
EC 215-185-5		Skin Corr. 1B H314: ≥ 2%, Skin Irrit. 2 H315: ≥ 0,5%, Eye Dam. 1 H318: ≥ 2%, Eye Irrit. 2 H319: ≥ 0,5%
INDEX 011-002-00-6		
REACH Reg. 01-2119457892-27-XXXX		

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

	UNOX S.p.A.	Revision n. 1 Dated 16/01/2023 Printed on 16/01/2023 Page n. 3/13
	DET & RINSE ULTRAPLUS	

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. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

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

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

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

Keep the safety data sheet of the preparation or, failing that, the label available for the medical personnel.

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

Evacuate area. Send away individuals who are not suitably equipped. 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. Use breathing equipment if

	UNOX S.p.A.	Revision n. 1 Dated 16/01/2023 Printed on 16/01/2023 Page n. 4/13
	DET & RINSE ULTRAPLUS	

powders are released into the air.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water. Avoid the formation of powder and dispersion of the product in the air.

6.3. Methods and material for containment and cleaning up

Collect the leaked product and place it in containers for recovery or disposal. Make sure the leakage site is well aired. It may be advisable to wash with water any surfaces contaminated with traces of dust, without contaminating waste water.

6.4. Reference to other sections

Notify the competent authorities if the product has reached waterways or if it has contaminated the ground or vegetation.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Use only with the automatic system supplied with UNOX ovens. Use frequency: up to 5 days/week. Duration of use: up to 10 minutes/day.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details. The product is alkaline and may generate hydrogen gas if it comes in contact with metals such as aluminium, zinc and tin.

The hydrogen gas developed may cause combustion when the product is transferred to a metal container made from one of the metals indicated above, or which has been in contact with the same for an extended period of time.

If the hydrogen gas develops in a closed space, there may be a risk of explosion.

Store at a temperature between 5 ° C and 40 ° C.

Storage class TRGS 510 (Germany): 8A

7.3. Specific end use(s)

Follow the instructions on the product labeled or on the information sheet. Refer to the safe use information if enclosed with this safety data sheet.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

BGR	България	НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)
ESP FRA GRC	España France Ελλάδα	Límites de exposición profesional para agentes químicos en España 2021 Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS 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 μεταλλαζιγόνους παράγοντες κατά την εργασία``»
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)

UNOX

UNOX S.p.A.

Revision n. 1
Dated 16/01/2023
Printed on 16/01/2023
Page n. 6/13

DET & RINSE ULTRAPLUS

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	straw yellow	
Odour	characteristic	Method:organoleptic
Odour threshold	not applicable	Reason for missing data:Not applicable to mixtures.
Melting point / freezing point	not determined	Reason for missing data:no test available
Initial boiling point	> 100 °C	
Flammability	not applicable (liquid product).	
Lower explosive limit	not applicable	Reason for missing data:The product is not explosive.
Upper explosive limit	not applicable	Reason for missing data:The product is not explosive.
Flash point	> 100°C	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	14	Temperature: 20 °C
Kinematic viscosity	not available	
Solubility	soluble in water	
Partition coefficient: n-octanol/water	not applicable	Reason for missing data:Not applicable to mixtures.
Vapour pressure	not available	
Density and/or relative density	1,2-1,3	
Relative vapour density	not available	
Particle characteristics	not applicable	

9.2. Other information

No other information available.

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Explosive properties	not applicable. None of the substances contained has functional groups associated with explosive properties.
Oxidising properties	not applicable. None of the contained substances has functional groups associated with oxidizing properties.

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

	UNOX S.p.A.	Revision n. 1 Dated 16/01/2023 Printed on 16/01/2023 Page n. 7/13	
	DET & RINSE ULTRAPLUS		
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.			
SODIUM HYDROXIDE Reacts violently with: strong acids.Develops hydrogen on contact with: aluminium alloys,copper alloys,zinc alloys,light metals.Reacts violently with: peroxides.			
10.4. Conditions to avoid			
Avoid contact with: strong acids,oxidising agents,light metals,copper alloys,zinc alloys,aluminium alloys.			
10.5. Incompatible materials			
Corrodes: aluminium,aluminium alloys,copper,copper alloys,zinc,zinc alloys.			
Compatible materials: polyethylene.polypropylene.PVC.			
Incompatible materials: aluminium.aluminium alloys.copper.copper alloys.zinc.zinc alloys.			
10.6. Hazardous decomposition products			
If involved in a fire: carbon oxides, nitrogen oxides, sulfur oxides, potassium oxides, sodium oxides.			
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			
<u>Metabolism, toxicokinetics, mechanism of action and other information</u> Information not available			
<u>Information on likely routes of exposure</u> Dermal. Inhalation (in case of aerosol formation only - use not recommended).			
<u>Delayed and immediate effects as well as chronic effects from short and long-term exposure</u> This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.			
<u>Interactive effects</u> Interactive effects are not known.			
ACUTE TOXICITY ATE (Inhalation) of the mixture: Not classified (no significant component) ATE (Oral) of the mixture: Not classified (no significant component)			

	UNOX S.p.A.	Revision n. 1 Dated 16/01/2023 Printed on 16/01/2023 Page n. 8/13
	DET & RINSE ULTRAPLUS	
ATE (Dermal) of the mixture:		Not classified (no significant component)
<u>SKIN CORROSION / IRRITATION</u> Corrosive for the skin. Classification according to the experimental pH value.		
SODIUM HYDROXIDE Corrosive (in vitro study, OECD method 435).		
<u>SERIOUS EYE DAMAGE / IRRITATION</u> Causes serious eye damage		
SODIUM HYDROXIDE Corrosive (Morgan et al., 1987; Reer et al., 1976, Wenworth et al., 1993).		
<u>RESPIRATORY OR SKIN SENSITISATION</u> Does not meet the classification criteria for this hazard class		
<u>Respiratory sensitization</u> Information not available		
<u>Skin sensitization</u> SODIUM HYDROXIDE Non -sensitizing (species: man, patch test. Exposure time: 24 hours, visual evaluation).		
<u>GERM CELL MUTAGENICITY</u> Does not meet the classification criteria for this hazard class		
SODIUM HYDROXIDE During normal use: limited absorption. Systemic effects not foreseen. (EU RAR, 2007; Section 4.1.2.6, page72).		
<u>CARCINOGENICITY</u> Does not meet the classification criteria for this hazard class		
SODIUM HYDROXIDE During normal use: limited absorption. Systemic effects not foreseen.		
<u>REPRODUCTIVE TOXICITY</u> Does not meet the classification criteria for this hazard class		
SODIUM HYDROXIDE During normal use: limited absorption. Systemic effects not foreseen.		
<u>Adverse effects on sexual function and fertility</u> SODIUM HYDROXIDE During normal use: limited absorption. Systemic effects not foreseen. (EU RAR, 2007; Section 4.1.2.8, page 73).		
<u>Adverse effects on development of the offspring</u> Information not available		
<u>Effects on or via lactation</u> Information not available		
STOT - SINGLE EXPOSURE Does not meet the classification criteria for this hazard class		
<u>Target organs</u> Information not available		

	UNOX S.p.A.	Revision n. 1 Dated 16/01/2023 Printed on 16/01/2023 Page n. 9/13					
	DET & RINSE ULTRAPLUS						
<u>Route of exposure</u> Information not available <u>STOT - REPEATED EXPOSURE</u> Does not meet the classification criteria for this hazard class <u>Target organs</u> Information not available <u>Route of exposure</u> Information not available <u>ASPIRATION HAZARD</u> 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							
Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.							
12.1. Toxicity <table><tr><td colspan="2">SODIUM HYDROXIDE</td></tr><tr><td>LC50 - for Fish</td><td>35 mg/l/96h Pesce</td></tr><tr><td>EC50 - for Crustacea</td><td>40,4 mg/l/48h Ceriodaphnia dubia</td></tr></table>			SODIUM HYDROXIDE		LC50 - for Fish	35 mg/l/96h Pesce	EC50 - for Crustacea
SODIUM HYDROXIDE							
LC50 - for Fish	35 mg/l/96h Pesce						
EC50 - for Crustacea	40,4 mg/l/48h Ceriodaphnia dubia						
12.2. Persistence and degradability SODIUM HYDROXIDE Completely soluble. It is not persistent (EU RAR 2007; Section 3.3.1.2, page 34). Biodegradability: not applicable (inorganic substance).							
12.3. Bioaccumulative potential SODIUM HYDROXIDE Non -Bioaccumulable (EU RAR 2007; Section 3.3.1.2, page 34).							
12.4. Mobility in soil The product is completely soluble in water. High mobility in soil is expected.							
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 ≥ 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 No other significant adverse effects for the environment are known.							

	UNOX S.p.A.	Revision n. 1 Dated 16/01/2023 Printed on 16/01/2023 Page n. 10/13
	DET & RINSE ULTRAPLUS	
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.		
HP codes (intact product): HP8 - Corrosive		
SECTION 14. Transport information		
14.1. UN number or ID number		
ADR / RID, IMDG, IATA:		

	UNOX S.p.A.		Revision n. 1 Dated 16/01/2023 Printed on 16/01/2023 Page n. 11/13
	DET & RINSE ULTRAPLUS		
IATA:	Cargo:	Maximum quantity: 30 L	Packaging instructions: 855
	Pass.:	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 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			
Product			
Point	3		
Contained substance			
Point	75		
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 ≥ 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.			

	UNOX S.p.A.		Revision n. 1 Dated 16/01/2023 Printed on 16/01/2023 Page n. 12/13
	DET & RINSE ULTRAPLUS		

Regulation (EC) No. 648/2004

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

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request or at the request of a detergent manufacturer.

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

WGK 1: Low hazard to waters

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances

SODIUM HYDROXIDE

This safety data sheet contains one or more Exposure Scenarios in an integrated form. Contents have been included in sections 1.2, 8, 9, 12, 15 and 16 of this safety data sheet.

SECTION 16. Other information

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

Met. Corr. 1	Substance or mixture corrosive to metals, category 1
Skin Corr. 1A	Skin corrosion, category 1A
Eye Dam. 1	Serious eye damage, category 1
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

Use descriptor system:

ERC	8a	Widespread use of non- reactive processing aid (no inclusion into or onto article, indoor)
LCS	PW	Widespread use by professional workers
PC	35	Washing and cleaning products
PROC	8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities

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%

	UNOX S.p.A.	Revision n. 1 Dated 16/01/2023 Printed on 16/01/2023 Page n. 13/13
	DET & RINSE ULTRAPLUS	

- 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)

- 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 / 04 / 05 / 06 / 07 / 08 / 09 / 10 / 11 / 12 / 13 / 14 / 15 / 16.