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

Product name **LAVASTOVIGLIE LINDO**

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

Intended use **Liquid dishwasher detergent.**

1.3. Details of the supplier of the safety data sheet

Name **Nuova Ricambi srl**
Full address **Via dei Mille, 20**
District and Country **20061 Carugate (MI)**
Italia

Tel. 02 9253205

e-mail address of the competent person
responsible for the Safety Data Sheet **info@nuovaricambi.net**

1.4. Emergency telephone number

For urgent inquiries refer to

Roma	**“ Osp. Pediatrico Bambino Gesù” DEA tel 06 68593726**	
Foggia	**Az. Osp. Univ. Foggia**	**tel 800183459**
Napoli	**Az. Osp. "A. Cardarelli"**	**tel 081-5453333**
Roma	**CAV Policlinico "Umberto I"**	**tel 06-49978000**
Roma	**CAV Policlinico "A. Gemelli"**	**tel 06-3054343**
Firenze	**Az. Osp. "Careggi" U.O. Toss. Medica**	**tel 055-7947819**
Pavia	**CAV C.Naz. Inf. Tossicologica**	**tel 0382-24444**
Milano	**Osp. Niguarda Ca' Granda**	**tel 02-66101029**
Bergamo	**Az. Osp. Papa Giovanni XXII**	**tel 800883300**
Verona	**Az. Ospedaliera Integrata Verona**	**tel 800011858**

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:

Skin corrosion, category 1A	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Harmful to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H412	Harmful to aquatic life with long lasting effects.
EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine).

Precautionary statements:

P260	Do not breathe dust / fume / gas / mist / vapours / spray.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P310	Immediately call a POISON CENTER / doctor / . . .
P264	Wash . . . thoroughly after handling.

Contains: POTASSIUM HYDROXIDE
SODIUM HYPOCHLORITE

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)
POTASSIUM HYDROXIDE		
INDEX 019-002-00-8	10 ≤ x < 15	Met. Corr. 1 H290, Acute Tox. 4 H302, Skin Corr. 1A H314, Eye Dam. 1 H318

EC 215-181-3 CAS 1310-58-3 REACH Reg. 01-2119487136-33		Skin Corr. 1B H314: ≥ 2%, Skin Irrit. 2 H315: ≥ 0,5%, Eye Dam. 1 H318: ≥ 2%, Eye Irrit. 2 H319: ≥ 0,5% LD50 Oral: 333 mg/kg
SODIUM HYPOCHLORITE (100% - active chlorine) INDEX 017-011-00-1 EC 231-668-3 CAS 7681-52-9 REACH Reg. 01-2119488154-34	1 ≤ x < 2,5	Met. Corr. 1 H290, Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1, EUH031, Classification note according to Annex VI to the CLP Regulation: B
SODIUM TRIPHOSPHATE PENTABASIC INDEX - EC 231-838-7 CAS 7758-29-4 REACH Reg. 01-2119430450-54	0 ≤ x < 5	Substance with a community workplace exposure limit.

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.

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

Block the leakage if there is no hazard.
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 into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

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.

ATTENTION: the product irreversibly stains clothing. ATTENTION: DO NOT TRANSFER INTO CONTAINERS OTHER THAN THE ORIGINAL. RISK OF FATAL ERRORS EXCHANGE WITH DRINKS.

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.

Keep away from acid and reducing products

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
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.
	TLV-ACGIH	ACGIH 2021

POTASSIUM HYDROXIDE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	1		4		RESP
VLEP	FRA			2		
WEL	GBR			2		
TLV-ACGIH				2 (C)		

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
Inhalation							1 mg/mc	VND

SODIUM HYPOCHLORITE

Predicted no-effect concentration - PNEC		
Normal value of STP microorganisms	0,03	mg/l

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
Inhalation					3,1 mg/mc	3,1 mg/mc		

SODIUM TRIPHOSPHATE PENTABASIC

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	10				RESP

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,005	mg/l
Normal value in marine water	0,005	mg/l

Normal value for fresh water sediment	0,19	mg/kg
Normal value for water, intermittent release	0,05	mg/l
Normal value for the terrestrial compartment	0,14	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
Inhalation						0,661 mg/m3		0,661 mg/m3
Skin						0,375 mg/kg/d		0,375 mg/kg/d

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 (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION
Wear category III 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 a hood visor or protective visor combined with airtight goggles (see standard EN 166).

RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

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

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

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	straw-coloured	
Odour	caratteristico di Cloro	
Melting point / freezing point	not available	
Initial boiling point	not available	
Flammability	not available	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	not available	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	13	Concentration: 1 %
Kinematic viscosity	not available	
Solubility	soluble in water	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	1,15	
Relative vapour density	not available	
Particle characteristics	not applicable	

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

POTASSIUM HYDROXIDE

May develop: heat.May corrode: metals.

10.2. Chemical stability

POTASSIUM HYDROXIDE

Stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

Contact with strong acids causes the development of toxic gases.

POTASSIUM HYDROXIDE

Develops hydrogen on contact with: metals.Develops heat on contact with: strong acids.Reacts violently with: water.

10.4. Conditions to avoid

POTASSIUM HYDROXIDE

Avoid exposure to: sources of heat.Keep away from: oxidising agents,acids,flammable substances,halogens,organic substances.Keep away from: lead,aluminium,copper,tin,sulphur,bronze.Absorbs atmospheric CO2.

Unstable on exposure to air. Freezing.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

POTASSIUM HYDROXIDE

May develop: flammable gases.

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

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)

POTASSIUM HYDROXIDE

LD50 (Oral):	333 mg/kg Rat

SODIUM HYPOCHLORITE

LD50 (Dermal):	20000 mg/kg
LD50 (Oral):	1100 mg/kg ratto
LC50 (Inhalation vapours):	> 10,5 mg/l/1h

SODIUM TRIPHOSPHATE PENTABASIC

LD50 (Dermal):	> 4640 mg/kg Coniglio
LD50 (Oral):	> 2000 mg/kg Ratto
LC50 (Inhalation mists/powders):	> 0,39 mg/l/4h Ratto

SKIN CORROSION / IRRITATION

Corrosive for the skin

Classification according to the experimental Ph value

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

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

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

12.1. Toxicity

SODIUM TRIPHOSPHATE PENTABASIC	
LC50 - for Fish	1850 mg/l/96h
EC50 - for Crustacea	> 100 mg/l/48h Daphnia M.
SODIUM HYPOCHLORITE	
LC50 - for Fish	0,032 mg/l/96h Oncorhynchus K.
EC50 - for Crustacea	0,026 mg/l/48h
Chronic NOEC for Fish	0,04 mg/l
Chronic NOEC for Crustacea	0,007 mg/l
Chronic NOEC for Algae / Aquatic Plants	0,02 mg/l
POTASSIUM HYDROXIDE	
LC50 - for Fish	> 80 mg/l/96h

12.2. Persistence and degradability

SODIUM HYPOCHLORITE
Not applicable for inorganic substances

POTASSIUM HYDROXIDE	
Solubility in water	> 10000 mg/l
Degradability: information not available	

12.3. Bioaccumulative potential

Information not available

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

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

Maximum transportable quantity without driver/vehicle authorization obligations: kg 333.

14.1. UN number or ID number

ADR / RID, IMDG, IATA: 1719

14.2. UN proper shipping name

ADR / RID:	CAUSTIC ALKALI LIQUID, N.O.S. MIXTURE
IMDG:	CAUSTIC ALKALI LIQUID, N.O.S. MIXTURE
IATA:	CAUSTIC ALKALI LIQUID, N.O.S. MIXTURE

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:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler:	Limited Quantities: 1 lt	Tunnel restriction code: E
	Special provision: 274		

IMDG:	EMS: F-A, S-B	Limited Quantities: 1 lt	
IATA:	Cargo:	Maximum quantity: -	Packaging instructions: -
	Pass.:	Maximum quantity: -	Packaging instructions: -
	Special provision:	-	

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

Composition (648/04/EC): less than 5% phosphates, chlorine-based whiteners, polycarboxylates.

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.

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the product

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
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
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 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH031	Contact with acids liberates toxic gas.
EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine).

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:
02 / 03 / 04 / 05 / 08 / 09 / 10 / 11 / 12 / 14 / 15 / 16.

APPENDIX: EXPOSURE SCENARIOS- N.2

PHASE: TRANSFER OF PROFESSIONAL PRODUCT VIA A DEDICATED SYSTEM (BOTTLE/MACHINE)(ref. AISE GEIS. 8b. 1.a.v1)

Transfer of a product in a fully closed system. No exposure for the worker.

(e.g.: Venturi system or dosing pump)

OPERATING CONDITIONS

Maximum duration	40 minutes/day
Process conditions	Process performed at room temperature Local exhaust ventilation (LEV) is not required; generally efficient ventilation in the work place is sufficient

RISK MANAGEMENT MEASURES

Conditions and measures concerning personal protective equipment (PPE), health and hygiene evaluation	Personal protective equipment is not required.

GENERAL ADVICE

Do not eat, drink, smoke or use live flames	
Wash hands after use. Avoid contact with damaged skin Do not mix with other products	
Leakage instructions	Dilute with water and collect
Additional advice	Follow the instructions on the label, the technical sheet and the SDS in sect. 7.

ENVIRONMENTAL MEASURES: Prevent the non-diluted product from reaching surface water

PRODUCT COMPOSITION PROPERTIES

The classification of the concentrated product can be found on the label and in sect. 2 of the SDS
The product classification is based on the ingredient classification. The list of ingredients contributing to the product classification can be found in sect. 3 of the SDS.
The exposure evaluation is based on the key limit values of the ingredients indicated in sect. 8 of the SDS
The product may contain sensitizing components which may cause an allergic reaction in some people. Sect. 15 of the SDS lists these sensitizing components, where applicable to the product.

USE DESCRIPTORS

SU 22: Professional uses
PC 35: Washing and cleaning products (including solvent-based products)
PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
ERC 8a: Wide dispersive indoor use of processing aids in open systems

APPENDIX: EXPOSURE SCENARIOS-N.3

PHASE: USING A PROFESSIONAL PRODUCT IN A CLOSED SYSTEM (ref AISE GEIS 1.1.a.V1)

Use of a product in a fully closed system. The worker is not exposed to the product or its vapors (e.g. CIP washing, washing machines)

OPERATING CONDITIONS

Maximum duration	480 minutes/day
Process conditions	Process performed at room temperature Local exhaust ventilation (LEV) is not required; generally efficient ventilation in the work place is sufficient

RISK MANAGEMENT MEASURES

Conditions and measures concerning personal protective equipment (PPE), health and hygiene evaluation	Personal protective equipment is not required.

GENERAL ADVICE

Do not eat, drink, smoke or use live flames	
Wash hands after use. Avoid contact with damaged skin Do not mix with other products	
Leakage instructions	Dilute with water and collect
Additional advice	Follow the instructions on the label, the technical sheet and the SDS in sect. 7.

ENVIRONMENTAL MEASURES: Prevent the non-diluted product from reaching surface water

PRODUCT COMPOSITION PROPERTIES

The classification of the concentrated product can be found on the label and in sect. 2 of the SDS
The product classification is based on the ingredient classification. The list of ingredients contributing to the product classification can be found in sect. 3 of the SDS.
The exposure evaluation is based on the key limit values of the ingredients indicated in sect. 8 of the SDS
The product may contain sensitizing components which may cause an allergic reaction in some people. Sect. 15 of the SDS lists these sensitizing components, where applicable to the product.

USE DESCRIPTORS

SU 22: Professional uses
PC 35: Washing and cleaning products (including solvent-based products)
PROC 1: Use in a closed circuit; exposure improbable
ERC 8a: Wide dispersive indoor use of processing aids in open systems