

# 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 **CLEAN EXPRESS**

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

Intended use **Special detergent for cleaning coffee machines.**

### 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. 029253205**

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.

By classification and labeling: Oecd 438: 2013 test

Hazard classification and indication:

Eye irritation, category 2

H319

Causes serious eye irritation.

The classification of the compound, featuring an extreme pH value, is based on the results of an appropriate in vitro test.

## 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.

Precautionary statements:

**P264** Wash thoroughly with water after use.  
**P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**P280** Wear protective gloves / protective clothing / eye protection / face protection.  
**P337+P313** If eye irritation persists: Get medical advice / attention.

## 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)
<b>SODIUM CARBONATE</b>		
INDEX -	$15 \leq x < 20$	Eye Irrit. 2 H319
EC 207-838-8		
CAS 497-19-8		
REACH Reg. 01-2119485498-19		
<b>SODIUM TRIPHOSPHATE</b>		
<b>PENTABASIC</b>		
INDEX -	$15 \leq x < 20$	Substance with a community workplace exposure limit.

EC 231-838-7

CAS 7758-29-4

REACH Reg. 01-2119430450-54

**SODIUM PERCARBONATE**INDEX  $15 \leq x < 20$  Ox. Liq. 3 H272, Acute Tox. 4 H302, Eye Dam. 1 H318EC - Eye Dam. 1 H318:  $\geq 25\%$ , Eye Irrit. 2 H319:  $\geq 10\%$ 

CAS 15630-89-4

LD50 Oral: &gt;1034 mg/kg

REACH Reg. 01-2119457268-30-

xxxx

**SODIUM METASILICATE**INDEX -  $5 \leq x < 10$  Met. Corr. 1 H290, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335

EC 229-912-9

CAS 10213-79-3

REACH Reg. 01-2119449811-37-

xxx

**SODIUM SALTS OF  
ALKYL BENZENESULPHONIC ACID**INDEX -  $3 \leq x < 5$  Eye Dam. 1 H318, Skin Irrit. 2 H315, Aquatic Chronic 3 H412

EC 932-051-8

CAS -

REACH Reg. 01-2119565112-48-  
0000

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. The product is combustible and, when the powder is released into the air in sufficient concentrations and in the presence of a source of ignition, it can create explosive mixtures with air. Fires may start or get worse by leakage of the solid product from the container, when it reaches high temperatures or through contact with sources of ignition.

### SODIUM PERCARBONATE

Sodium percarbonate: contact with flammable substances is dangerous; decomposition with development of O<sub>2</sub>.

## 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).

### SODIUM PERCARBONATE

Sodium percarbonate: the product is an oxidiser: easily releasing O<sub>2</sub> it fuels fires; protect from heat and humidity.

## 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.

### SODIUM PERCARBONATE

Sodium percarbonate: avoid hermetically closing the container.

### 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

DO NOT TRANSFER THE PRODUCT TO CONTAINERS DIFFERENT FROM THE ORIGINAL; RISK OF FATAL FOOD EXCHANGE ERRORS.

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.

### 7.3. Specific end use(s)

Information not available

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

Regulatory References:

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 TRIPHOSPHATE PENTABASIC

#### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations		
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	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

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						0,661 mg/m <sup>3</sup>		0,661 mg/m <sup>3</sup>
Skin						0,375 mg/kg/d		0,375 mg/kg/d

### SODIUM CARBONATE

#### 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							10 mg/mc	VND

### SODIUM PERCARBONATE

#### Threshold Limit Value

Type	Country	TWA/8h	STEL/15min		Remarks / Observations		
		mg/m3	ppm	mg/m3	ppm		
OEL	EU	5					
<b>Predicted no-effect concentration - PNEC</b>							
Normal value for fresh water sediment				0,035	mg/kg		
Normal value for water, intermittent release				0,035	mg/l		
Normal value of STP microorganisms				16,24	mg/l		
<b>Health - Derived no-effect level - DNEL / DMEL</b>							
	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							5 mg/m3
Skin					12,8 mg/cm2		
<b>SODIUM METASILICATE</b>							
<b>Predicted no-effect concentration - PNEC</b>							
Normal value of STP microorganisms				1000	mg/l		
<b>Health - Derived no-effect level - DNEL / DMEL</b>							
	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							6.22 mg/m3
Skin							1,49 mg/kg bw/d
<b>SODIUM SALTS OF ALKYL BENZENESULPHONIC ACID</b>							
<b>Predicted no-effect concentration - PNEC</b>							
Normal value in fresh water				0,268	mg/l		
Normal value in marine water				0,268	mg/l		
Normal value for fresh water sediment				8,1	mg/kg		
Normal value for marine water sediment				8,1	mg/kg		
Normal value for water, intermittent release				0,055	mg/l		
Normal value of STP microorganisms				5,6	mg/l		
Normal value for the terrestrial compartment				35	mg/kg		
<b>Health - Derived no-effect level - DNEL / DMEL</b>							
	Effects on consumers			Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local Chronic systemic
Oral				0,425 mg/kg bw/d			
Inhalation				1,5 mg/m3			6 mg/m3
Skin				42,5 mg/kg bw/d		VND	85 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.

During the risk assessment process, it is essential to take into consideration the ACGIH occupational exposure levels for inert particulate not otherwise classified (PNOC respirable fraction: 3 mg/m<sup>3</sup>; PNOC inhalable fraction: 10 mg/m<sup>3</sup>). For values above these limits, use a P type filter, whose class (1, 2 or 3) must be chosen according to the outcome of risk assessment.

## 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

Use a type P filtering facemask, whose class (1, 2 or 3) and effective need, must be defined according to the outcome of risk assessment (see standard EN 149).

### 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	powder	
Colour	white	Remark:12 (Hazen)
Odour	characteristic	
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	11,32	Concentration: 1 %
Kinematic viscosity	not available	
Dynamic viscosity	ND	
Solubility	soluble in water	Remark:> 99% p/p
Partition coefficient: n-octanol/water	ND	
Vapour pressure	N.A. mmHg	
Density and/or relative density	1,19 g/cm <sup>3</sup>	

Relative vapour density ND  
Particle characteristics not available

## 9.2. Other information

9.2.1. Information with regard to physical hazard classes

### Oxidizing solids

Oxidizing solids Remark: Non comburente (34.4.1 Test 0.1 Manuale UN)

9.2.2. Other safety characteristics

Evaporation rate ND  
Conductivity 15440  $\mu\text{S/cm}$  (20 °C- 1% p/v)

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

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

SODIUM METASILICATE

The aqueous solutions act as: strong bases. Corrodes: aluminium, zinc, tin, aluminium alloys, zinc alloys, tin alloys.

### 10.2. Chemical stability

The product is stable in normal conditions of use and storage.

### 10.3. Possibility of hazardous reactions

The powders are potentially explosive when mixed with air.

SODIUM METASILICATE

Reacts violently with: acids.

### 10.4. Conditions to avoid

Avoid environmental dust build-up.

SODIUM PERCARBONATE

Sodium percarbonate: exposure to heat and humidity.

### 10.5. Incompatible materials

SODIUM SALTS OF ALKYL BENZENESULPHONIC ACID

Incompatible with: acids, bases.



**10.6. Hazardous decomposition products**

SODIUM PERCARBONATE

Sodium percarbonate: development of oxygen which feeds a fire.

**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 TRIPHOSPHATE PENTABASIC

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

SODIUM CARBONATE

LD50 (Dermal): 117 mg/kg Mouse  
LD50 (Oral): 4090 mg/kg Rat  
LC50 (Inhalation mists/powders): 2,3 mg/l/2h Rat

**SODIUM PERCARBONATE**

LD50 (Oral): > 1034 mg/kg ratto

**SODIUM METASILICATE**

LD50 (Dermal): > 5000 mg/kg  
LD50 (Oral): > 1150 mg/kg Ratto  
LC50 (Inhalation mists/powders): > 2,06 mg/l

**SODIUM SALTS OF ALKYL BENZENESULPHONIC ACID**

LD50 (Dermal): > 2000 mg/kg Ratto  
LD50 (Oral): > 2000 mg/kg ratto

**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**

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****12.1. Toxicity**

## SODIUM TRIPHOSPHATE PENTABASIC

LC50 - for Fish 1850 mg/l/96h  
EC50 - for Crustacea > 100 mg/l/48h Daphnia M.

## SODIUM PERCARBONATE

LC50 - for Fish > 70,7 mg/l/96h Pimephales P.

SODIUM SALTS OF  
ALKYLBENZENESULPHONIC ACID

LC50 - for Fish > 1 mg/l/96h Cyprinus Carpio  
EC50 - for Crustacea > 1 mg/l/48h Daphnia m.  
EC50 - for Algae / Aquatic Plants > 10 mg/l/72h Desmodesmus subspicatus

## SODIUM CARBONATE

LC50 - for Fish > 300 mg/l/96h  
EC50 - for Crustacea 200 mg/l/48h

## SODIUM METASILICATE

LC50 - for Fish > 210 mg/l/96h Brachydanio R.  
EC50 - for Crustacea 1700 mg/l/48h

EC50 - for Algae / Aquatic Plants

&gt; 207 mg/l/72h

**12.2. Persistence and degradability**SODIUM SALTS OF  
ALKYLBENZENESULPHONIC ACID

Rapidly degradable

SODIUM CARBONATE

Solubility in water

1000 - 10000 mg/l

Degradability: information not available

The product contains substances that meet the biodegradability requirements prescribed by Reg 648/04/CE.

**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  $\geq$  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**

Composition (648/04/EC): inf. 5%: anionic surfactants; 15-30%: phosphates, oxygen-based whiteners, .

**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

None

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.

**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:

<b>Ox. Liq. 3</b>	Oxidising liquid, category 3
<b>Met. Corr. 1</b>	Substance or mixture corrosive to metals, category 1
<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>Skin Corr. 1B</b>	Skin corrosion, category 1B
<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>Eye Irrit. 2</b>	Eye irritation, category 2
<b>Skin Irrit. 2</b>	Skin irritation, category 2
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>Aquatic Chronic 3</b>	Hazardous to the aquatic environment, chronic toxicity, category 3
<b>H272</b>	May intensify fire; oxidiser.
<b>H290</b>	May be corrosive to metals.
<b>H302</b>	Harmful if swallowed.

<b>H314</b>	Causes severe skin burns and eye damage.
<b>H318</b>	Causes serious eye damage.
<b>H319</b>	Causes serious eye irritation.
<b>H315</b>	Causes skin irritation.
<b>H335</b>	May cause respiratory irritation.
<b>H412</b>	Harmful 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
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- 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 / 11 / 12 / 15 / 16.



## APPENDIX: EXPOSURE SCENARIOS - No.1


**PHASE: TRANSFER OF THE PROFESSIONAL PRODUCT INTO CONTAINER (BUCKET/MACHINE)**

(ref AISE GEIS.8a .1.a.v1)- Open transfer of a concentrated product (with or without diluting); the worker is directly exposed to the product.



## OPERATING CONDITIONS

Maximum duration	50 minutes/day
Process conditions	Process performed at room temperature Dilute if required with tap water at a maximum temperature of 45 °C. 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	Use gloves and protective goggles. See sect. 8 for specifications. Staff must be trained appropriately in use and maintenance 
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## 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 DESCRIPTORSSU 22: Professional uses

PC 35: Washing and cleaning products (including solvent-based products)

PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

ERC 8a: Wide dispersive indoor use of processing aids in open systems

## APPENDIX: EXPOSURE SCENARIOS - No. 4

**PHASE: USING A PROFESSIONAL PRODUCT IN A SEMI CLOSED SYSTEM (ref AISE GEIS 2.1.a.V1)**

Using a product in a machine where the worker could be exposed to the product/vapors

(e.g.: Tunnel washing)



## 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.
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## 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
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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 2: Use in closed, continuous process with occasional controlled exposure
ERC 8a: Wide dispersive indoor use of processing aids in open systems

## APPENDIX: EXPOSURE SCENARIOS - NO. 11

**PHASE: USING A PROFESSIONAL PRODUCT FOR IMMERSING/POURING (ref AISE GEIS.13 .1.A.v1)**


**The product is poured on an item, or the item is immersed in the product (e.g. toilet cleaning)**

## OPERATING CONDITIONS



Maximum duration	50 minutes/day
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Process conditions	Process performed at room temperature Dilute if required with tap water at a maximum temperature of 45 °C. Local exhaust ventilation (LEV) is not required; generally efficient ventilation in the work place is sufficient
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## RISK MANAGEMENT MEASURES

Conditions and measures concerning personal protective equipment (PPE), health and hygiene evaluation	Use gloves and protective goggles. See sect. 8 for specifications  Staff must be trained appropriately in use and maintenance
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## 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
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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 13: Treatment of items by immersing or pouring
ERC 8a: Wide dispersive indoor use of processing aids in open systems

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OPERATING CONDITIONS

Maximum duration	50 minutes/day
Process conditions	Process performed at room temperature Dilute if required with tap water at a maximum temperature of 45 °C. 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	Use gloves and protective goggles. See sect. 8 for specifications. Staff must be trained appropriately in use and maintenance 
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GENERAL ADVICE

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PHASE: USING A PROFESSIONAL PRODUCT IN A SEMI CLOSED SYSTEM (ref AISE GEIS 2.1.a.V1)

Using a product in a machine where the worker could be exposed to the product/vapors

(e.g.: Tunnel washing)



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.
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The product is poured on an item, or the item is immersed in the product (e.g. toilet cleaning)

OPERATING CONDITIONS

Maximum duration	50 minutes/day
Process conditions	Process performed at room temperature Dilute if required with tap water at a maximum temperature of 45 °C. 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	Use gloves and protective goggles. See sect. 8 for specifications  Staff must be trained appropriately in use and maintenance
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