

DUEINUNO

Revision nr. 6

Dated 22/02/2023 Printed on 22/02/2023

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Replaced revision:5 (Printed on: 06/12/2022)

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

DUEINUNO Product name Chemical name and synonym PACK AC15

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

Intended use Acid descaler.

1.3. Details of the supplier of the safety data sheet

Nuova Ricambi srl Name Via dei Mille, 20 Full address 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

Az. Osp. "A. Cardarelli" CAV Policlinico "Umberto I" tel 081-5453333 Napoli tel 06-49978000 Roma CAV Policlinico "A. Gemelli" Roma tel 06-3054343 Firenze Az. Osp. "Careggi" U.O. Toss. Medica tel 055-7947819

CAV C.Naz. Inf. Tossicologica Pavia tel 0382-24444 Milano Osp. Niguarda Ca' Granda tel 02-66101029 Bergamo Az. Osp. Papa Giovanni XXII tel 800883300

tel 800183459

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:

Acute toxicity, category 4 H302 Harmful if swallowed. Acute toxicity, category 4 H332 Harmful if inhaled

Skin corrosion, category 1A H314 Causes severe skin burns and eye damage.



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Serious eye damage, category 1

H318

Causes serious eye damage.

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:

H302+H332 Harmful if swallowed or if inhaled.

H314 Causes severe skin burns and eye damage.

EUH071 Corrosive to the respiratory tract.

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: NITRIC ACID

PHOSPHORIC ACID

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)

NITRIC ACID



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INDEX 007-030-00-3 $15 \le x < 26,45$

Ox. Liq. 3 H272, Met. Corr. 1 H290, Acute Tox. 3 H331, Skin Corr. 1A H314, Eye Dam. 1 H318, EUH071, Classification note according to Annex VI to the

CLP Regulation: B

EC 231-714-2 CAS 7697-37-2 Ox. Liq. 3 H272: \geq 65%, Skin Corr. 1A H314: \geq 20%, Skin Corr. 1B H314: \geq 5%, Skin Irrit. 2 H315: \geq 1%, Eye Dam. 1 H318: \geq 3%, Eye Irrit. 2 H319: \geq 1%

LC50 Inhalation vapours: 2,65 mg/l/4h

REACH Reg. 01-2119487297-23

PHOSPHORIC ACID
INDEX 015-011-00-6

15 ≤ x < 25

Met. Corr. 1 H290, Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1

H318, Classification note according to Annex VI to the CLP Régulation: B Skin Corr. 1B H314: ≥ 25%, Skin Irrit. 2 H315: ≥ 10%, Eye Dam. 1 H318: ≥

25%, Eye Irrit. 2 H319: ≥ 10% LD50 Oral: >300 mg/kg

EC 231-633-2

CAS 7664-38-2

REACH Reg. 01-2119485924-24

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



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I 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: do not pour into containers other than the original; risk of fatal errors of 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.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters



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Regulatory References:

Deutschland Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte.

MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher

Arbeitsstoffe, Mitteilung 56

FSP España Límites de exposición profesional para agentes químicos en España 2021

Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS Decreto Legislativo 9 Aprile 2008, n.81 FRA ITA France

Italia

United Kingdom EH40/2005 Workplace exposure limits (Fourth Edition 2020)

OEL EU Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EÚ) 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**

NI.	TR	IIC	AC	ID		
TI.		- 1-	- 1 -1		!4	

GBR

Threshold Limit Val	ue					
Туре	Country	TWA/8h		STEL/15min	ı	Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU			2,6	1	
VLA	ESP			2,6	1	
VLEP	FRA			2,6	1	
VLEP	ITA			2,6	1	
WEL	GBR			2,6	1	
OEL	EU			2,6	1	
TLV-ACGIH		5,2	2	10,3	4	

Health - Derived no-effect level - DNEL / DMEL

	Effects on				Effects on			
	consumers				workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation							1.3 mg/mc	VND

PHOSPHORIC ACID

Threshold Limit Va	lue						
Туре	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
AGW	DEU	2		4 (C)		INHAL	
MAK	DEU	2		4		INHAL	
VLA	ESP	1		2			
VLEP	FRA	1	0,2	2	0,5		
VLEP	ITA	1		2			
WEL	GBR	1		2			
OEL	EU	1		2			
TLV-ACGIH		1		3			
Predicted no-effect con-	centration - PNEC						
Normal value in fresh w	vater			NPI			
Normal value in marine	water			NPI			
Normal value for fresh	water sediment			NPI			



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Normal value for marine water sediment	NPI	
Normal value for water, intermittent release	NPI	
Normal value of STP microorganisms	NPI	
Normal value for the food chain (secondary poisoning)	NPI	
Normal value for the terrestrial compartment	NPI	
Normal value for the atmosphere	NPI	

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
Oral				0,1 mg/kg bw/d				
Inhalation			0,36 mg/m3	4,57 mg/m3	2 mg/m3		1 mg/m3	10,7 mg/m3

Leaend:

(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).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

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 B 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



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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.

Information

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties Value . Appearance liquid Colour colourless Odour typical Melting point / freezing point not available not available Initial boiling point not available Flammability not available Lower explosive limit Upper explosive limit not available not available Flash point not available Auto-ignition temperature not available Decomposition temperature

1,83

not available Kinematic viscosity soluble in water Solubility not available Partition coefficient: n-octanol/water Vapour pressure not available

Density and/or relative density 1,29

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

NITRIC ACID

Decomposes at 84°C/183°F.Possibility of self-ignition.

Remark:Soluzione 1%



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PHOSPHORIC ACID

Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

Information not available

10.3. Possibility of hazardous reactions

The product may react violently with water.

PHOSPHORIC ACID

Risk of explosion on contact with: nitromethane. May react dangerously with: alkalis, sodium borohydride.

10.4. Conditions to avoid

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

NITRIC ACID

Avoid exposure to: heat, light.

10.5. Incompatible materials

NITRIC ACID

Incompatible with: flammable substances,reducing substances,alcohol,metals,basic substances,acetone,acetic acid,acetic anhydride.Incompatible materials: plastic materials.

PHOSPHORIC ACID

Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

NITRIC ACID

May develop: nitric oxide.

PHOSPHORIC ACID

May develop: phosphoryl 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.



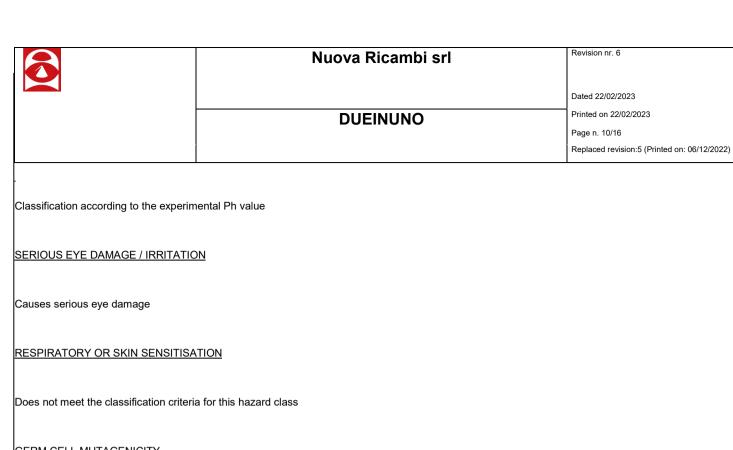
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It is therefore necessary to take into ac effects of exposure to the product.	It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.					
11.1. Information on hazard classes	as defined in Regulation	n (EC) No 1272/2008				
Metabolism, toxicokinetics, mechanism	n of action and other infor	<u>mation</u>				
Information not available						
Information on likely routes of exposure	<u>e</u>					
Information not available						
Delayed and immediate effects as well	l as chronic effects from s	hort and long-term exposure				
Information not available						
Interactive effects						
Information not available						
ACUTE TOXICITY						
Corrosive to the respiratory tract.						
ATE (Inhalation - vapours) of the mix ATE (Oral) of the mixture: ATE (Dermal) of the mixture:	cture:	10,02 mg/l 1200,40 mg/kg Not classified (no significant component)				
NITRIC ACID						
LC50 (Inhalation vapours):		2,65 mg/l/4h Rat				
PHOSPHORIC ACID						
LD50 (Dermal): LD50 (Oral):		2740 mg/kg Rabbit > 300 mg/kg Rat (OECD 423)				
SKIN CORROSION / IRRITATION						
Corrosive for the skin						



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



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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

PHOSPHORIC ACID

LC50 - for Fish > 75 mg/l/96h

12.2. Persistence and degradability

NITRIC ACID

Solubility in water > 1000000 mg/l

Degradability: information not available

PHOSPHORIC ACID

Solubility in water > 850000 mg/l

Degradability: information not available

12.3. Bioaccumulative potential

NITRIC ACID

Partition coefficient: n-octanol/water < 3

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



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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

14.1. UN number or ID number

ADR / RID, IMDG, IATA: 3264

14.2. UN proper shipping name

ADR / RID: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. MIXTURE IMDG: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. MIXTURE IATA: CORROSIVE LIQUID, ACIDIC, INORGANIC, 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:

14.5. Environmental hazards

ADR / RID: NO IMDG: NO IATA: NO

14.6. Special precautions for user

ADR / RID: HIN - Kemler: -Limited Tunnel Quantities: 1lt

restriction

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IMDG:	Special provision: 274 EMS: F-A, S-B	Limited	code: E			
	·	Quantities: 1lt				
IATA:	Cargo:	Maximum quantity: -	Packaging instructions: -			
	Pass.:	Maximum	Packaging			
	Special provision:	quantity: - -	instructions: -			
14.7. Maritime transport in bulk acco	ording to IMO instruments					
Information not relevant						
SECTION 15. Regulatory	information					
15.1. Safety, health and environme	ental regulations/legislation specific for the substanc	e or mixture				
Seveso Category - Directive 2012/18/E	EU: None					
Restrictions relating to the product or o	contained substances pursuant to Annex XVII to EC Regu	ulation 1907/2006				
Product Point	3					
Contained substance						
Point	75					
Regulation (EU) 2019/1148 - on the m	Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors					
Restricted explosives precursor The acquisition, introduction, possession or use of that restricted explosives precursor by members of the general public is subject to a restriction as set out in Article 5(1) and (3). Restricted explosives precursors shall not be made available to, or introduced, possessed or used by members of the general public. The acquisition, introduction, possession or use of that regulated explosives precursor by members of the general public is subject to reporting						
obligations as set out in Article 9. All suspicious transactions and signific	ant disappearances and thefts must be reported to the re	elevant national conta	et point.			
Substances in Candidate List (Art. 59 l						
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

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

Substances subject to the Rotterdam Convention:



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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 not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

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

Ox. Liq. 3 Oxidising liquid, category 3

Met. Corr. 1 Substance or mixture corrosive to metals, category 1

Acute Tox. 3
Acute toxicity, category 3
Acute Tox. 4
Acute toxicity, category 4
Skin Corr. 1A
Skin corrosion, category 1A
Skin Corr. 1B
Skin corrosion, category 1B
Eye Dam. 1
Begin Dam. 1

H331 Toxic if inhaled.
H302 Harmful if swallowed.

H302+H332 Harmful if swallowed or if inhaled.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

EUH071 Corrosive to the respiratory tract.

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



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- 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.

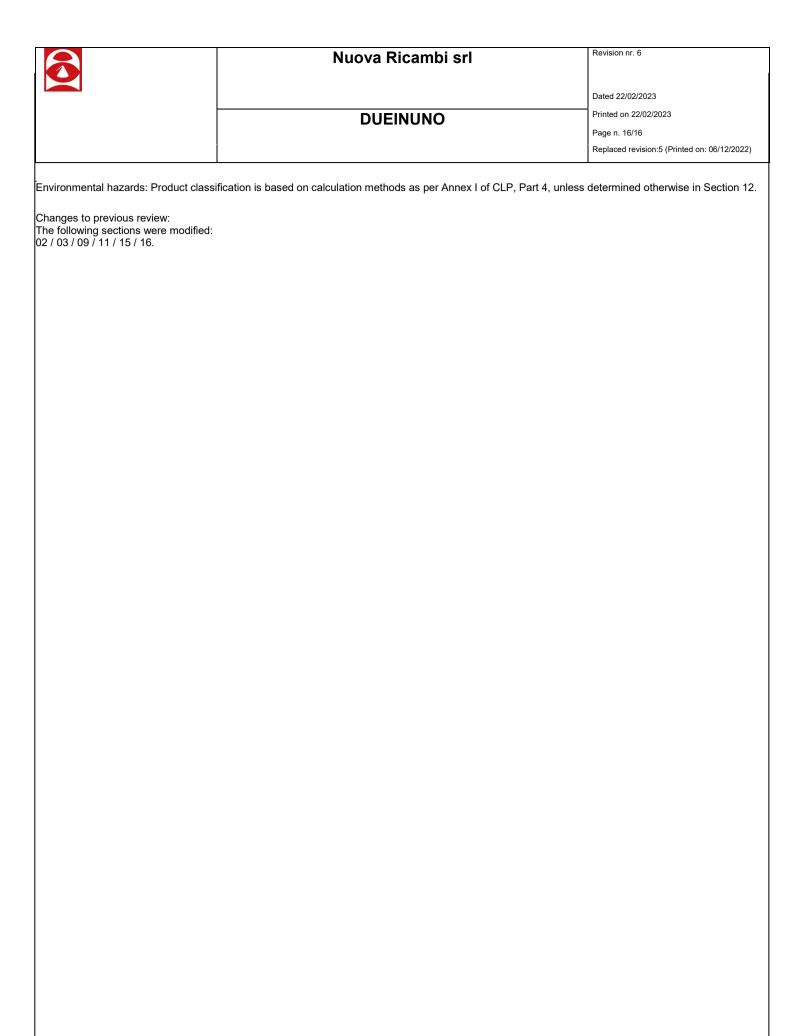
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

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.



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

asures concerning personal protective ealth and hygiene evaluation	Use gloves and protective goggles. See sect. 8 for specifications. Staff must be trained appropriately in use
,	and maintenance

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
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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

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

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

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	8! **
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
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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

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	Personal protective equipment is not required.
equipment (PPE), health and hygiene evaluation	

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

SII 22.	Professional uses	
3U ZZ.	ribiessibilai uses	

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

PROC 1: Use in a closed circuit; exposure improbable

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 washsing)
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	Personal protective equipment is not required.
equipment (PPE), health and hygiene evaluation	

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	8! *
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

SII 22.	Professional uses
3U ZZ.	ribiessibilai uses

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

PROC 2: Use in closed, continuous process with occasional controlled exposure