Safety Data Sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:

Product name **PINGUINO CLEANCAL**

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

Intended use Descaler

Unintended use Any use not specified in this section or in section 7.3

1.3. Details of the supplier of the safety data sheet

Name **De'Longhi Appliances S.r.l.**

Address **via Lodovico Seitz, 47**

City and Country **31100 Treviso (TV)**
ITALY

tel. +39 (0)422 4131 (Switchboard – office hours Mo-Fri 08:00 – 17:00)

fax +39 (0)422 413736

Toll-free number 800 854040 (office hours Mo-Fri 08:00-18:30 / Sa 08:00-12:00)

e-mail of person responsible of data sheet **http://www.delonghi.com**
msds.helpdesk.delonghi@delonghigroup.com

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http://www.delonghi.com
msds.helpdesk.delonghi@delonghigroup.com

1.4. Emergency telephone number

For urgent inquiries refer to

Regional Medicines and Poisons Information Centre NI	Belfast	844 892 0111	nirdic.nirdic@belfasttrust.hscni.net
National Poisons Information Service (Birmingham Unit)	Birmingham	844 892 0111	mail@npis.org
National Poisons Information Service (Edinburgh Unit)	Edinburgh	844 892 0111	spib@luht.scot.nhs.uk
National Poisons Information Service (Newcastle Unit)	Newcastle Upon Tyne		newcastlenpis@nuth.nhs.uk
National Poisons Information Service (Cardiff Unit)	Penarth	844 892 0111	poisons.information@cardiffandvale.wales.nhs.uk

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 EC Regulation 1907/2006 and subsequent amendments.

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 Corr. 1A	H314	Causes severe skin burns and eye damage
Eye Dam. 1	H318	Causes serious eye damage

The full text of the hazard statements (H) can be found in section 16 of the sheet.

2.2. Label elements.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H318	Causes severe eye damage.

Precautionary statements:

P102	Keep out of reach of children.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Shower.
P305 + **P351** + **P338**	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501	Dispose of contents/container in accordance with local regulations.

Contains: sulfamic acid, citric acid

Indication on ingredients per Reg. (EC) 648/2004: None.

2.3. Other hazards.

Based on available data, the product does not contain PBT or vPvB substances in percentages greater than 0.1%.
The mixture does not contain substances listed for endocrine system disrupting properties in percentages greater than 0.1%.

SECTION 3. Composition/information on ingredients.

3.2. Mixtures.

Contains:

	Conc. %.	Classification 1272/2008 (CLP).	
SULFAMIC ACID	5 ≤ C < 10	Skin Irrit. 2	H315
		Eye Irrit. 2	H319
		Aquatic Chronic 3	H412

CAS. 5329-14-6
CE. 226-218-8
INDEX 016-026-00-0
REACh No 01-2119488633-28

	Conc. %.	Classification 1272/2008 (CLP).	
CITRIC ACID	5 ≤ C < 10	Eye Irrit. 2	H319

CAS. 5949-29-1
CE. 201-069-1
INDEX -
REACh No 01-2119457026-42

The meaning of H phrases is explained at section 16.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove any contact lenses. Wash immediately and with plenty of water for at least 15/30 minutes, opening the eyelids wide. Consult a doctor immediately
SKIN: wash thoroughly with soap and water. Take off contaminated clothing. If irritation persists, consult your doctor. Wash the contaminated clothes before reusing them.
INGESTION: Drink as much water as possible. If necessary, consult a doctor. Do not induce vomiting unless specifically authorized by your doctor.
INHALATION: Call a doctor. Move the person to fresh air, away from the scene of the accident. If breathing stops, give artificial respiration. Adopt adequate precautions for the rescuer.

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

For symptoms and effects due to the substances contained, see section 11.

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

Follow medical information

SECTION 5. Firefighting measures

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing media are: carbon dioxide, foam, chemical powder. For product leaks and spills that have not ignited, water spray can be used to disperse flammable vapors and protect those trying to stop the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use water jets. Water is not effective in extinguishing fires however it can be used to cool closed containers exposed to flames preventing bursts and explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Thermal combustion leads to the development of toxic and irritating vapors including carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx). Avoid breathing fumes or vapors. Exposure to combustion and decomposition products can cause damage to your health.

5.3. Advice for firefighters.

GENERAL INFORMATION
Cool the containers with jets of water to avoid decomposition of the product and the development of substances potentially dangerous to health. Always

wear full fire protection equipment. Collect extinguishing water that must not be discharged into sewers. Dispose of the contaminated water used for extinguishing and the residue of the fire according to current regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire-fighting clothing, such as an open circuit compressed air breathing apparatus (EN 137), flame retardant suit (EN469), flame retardant gloves (EN 659) and fire fighter boots (HO A29 or A30).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
6.1.1 For non-emergency personnel:
The following instructions are aimed at duly trained personnel operating in the plant units in which the mixture is normally used and are intended to ensure, when this is possible without risks, preliminary safety operations before leaving and waiting for the intervention of the emergency team.
Stop the leak if the operation does not involve risk.
Remove people not involved in the emergency response from the area affected by the spill.
If possible, operate upwind.
Ensure adequate ventilation of the rooms affected by the spill.
Wear appropriate protective equipment (including personal protective equipment referred to in section 8 of the safety data sheet) to prevent contamination of skin, eyes and personal clothing.
6.1.2 For emergency responders:
The following indications are aimed at expert personnel such as personnel who are part of the emergency team and, for this purpose, specially trained; they are added to the indications referred to in the point referring to personnel who do not intervene directly; the indications relating to environmental precautions and containment and remediation methods refer to the same personnel.
It may be effective to slowly dilute the spread with water
6.2. Environmental precautions.
Prevent the product from entering sewers, surface waters and groundwater.
6.3. Methods and material for containment and cleaning up.
Collect up the spilled product into a suitable container. Evaluate the compatibility of the container to be used with the product, checking section 10. Absorb the remainder with inert absorbent material.
Provide sufficient ventilation of the area affected by the leak. Check for any incompatibilities for the container material in section 7. Disposal of contaminated material must be carried out in accordance with the provisions of 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.
Handle the product after consulting all other sections of this safety data sheet. Avoid dispersing the product into the environment. Do not eat, drink or smoke when using. Remove contaminated clothing and protective equipment before entering eating areas.
7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep containers closed, in a well-ventilated place, away from direct sunlight. Store containers away from any incompatible materials, checking section 10.
7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters.
None.
8.2. Exposure controls.
Considering that the use of adequate technical measures should always take priority over personal protective equipment, ensure good ventilation in the workplace through effective local extraction.
When choosing personal protective equipment, ask your chemical suppliers for advice if necessary.
Personal protective equipment must bear the CE marking which certifies their compliance with current regulations.
Provide emergency shower with eyecup.
HAND PROTECTION
Protect your hands with category III work gloves (ref. standard EN 374) made of PVC, NBR, butyl rubber, neoprene.
For the final choice of work glove material, the following must be considered: compatibility, degradation, breaking time and permeation.
In the case of preparations, the resistance of work gloves to chemical agents must be checked before use as it is unpredictable. The gloves have a wear time that depends on the duration and method of use.
SKIN PROTECTION
Wear work clothes with long sleeves and safety footwear for professional category II use (ref. Directive 89/686/EEC and standard EN ISO 20344). Wash with soap and water after removing protective clothing.
EYE PROTECTION
It is advisable to wear a hooded visor or protective visor combined with airtight glasses (ref. standard EN 166).
Provide an eyewash system and emergency shower.
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) of the substance or one or more of the substances present in the product is exceeded, it is recommended to wear a mask with type E filter whose class (1, 2 or 3) must be chosen in relation to the limit concentration of use. (ref. standard EN 14387). If gases or vapors of

a different nature and/or gases or vapors with particles (aerosols, fumes, mists, etc.) are present, combined filters must be provided.
The use of respiratory protection means is necessary if the technical measures adopted are not sufficient to limit the worker's exposure to the threshold values taken into consideration. However, the protection offered by masks is limited.
In the event that the substance considered is odorless or its olfactory threshold is higher than the relevant TLV-TWA and in case of emergency, wear an open-circuit compressed air breathing apparatus (ref. standard EN 137) or a self-contained breathing apparatus external air (ref. EN 138 standard). For the correct choice of respiratory protection device, refer to the EN 529 standard.
ENVIRONMENTAL EXPOSURE CONTROLS.
Emissions from production processes, including those from ventilation equipment, should be controlled for compliance with environmental protection legislation

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

a)	Physical state:	liquid
b)	Colour:	Colourless
c)	Odour:	Characteristic
d)	Melting point/freezing point:	Not determined.
e)	Boiling point or initial boiling point and boiling range:	Not determined.
f)	Flammability:	Not flammable.
g)	Lower and upper explosion limit:	Not applicable. (not-flammable liquid)
h)	Flash point:	> 60 °C.
i)	Auto-ignition temperature:	Not determined.
j)	Decomposition temperature:	Not determined.
k)	pH:	1,5-2,0
l)	Kinematic viscosity:	Not available.
m)	Solubility:	Soluble in water.
n)	Partition coefficient: n-octanol / water:	Not determined. (mixture soluble in water only)
o)	Vapour pressure:	Not available. (aqueous mixture, not containing substances more volatile than water)
p)	Density and/or relative density:	~1,065 g/cm3
q)	Relative vapour density:	Not determined
r)	Particle characteristics:	Not applicable (liquid mixture)

9.2. Other information.

VOC (Directive 1999/13/EC) :	0
VOC (volatile carbon) :	0

SECTION 10. Stability and reactivity.

The finished product has a stability of no less than 6 months stored under normal conditions.

10.1. Reactivity.
There are no particular dangers of reaction with other substances under normal conditions of use. Avoid contact with strong bases and strong oxidants

10.2. Chemical stability.
The product is stable under normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
Under normal conditions of use and storage, dangerous reactions are not foreseeable.

10.4. Conditions to avoid.
None in particular. However, follow the usual precautions regarding chemical products.

10.5. Incompatible materials.
Strong oxidizing agents.

10.6. Hazardous decomposition products.
With thermal decomposition or in the event of fire, gases and vapors potentially harmful to human health can be released. Carbon dioxide, Carbon monoxide.

SECTION 11. Toxicological information.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008.
In the absence of experimental toxicological data on the product itself, any health hazards of the product were assessed based on the properties of the substances contained, according to the criteria established by the reference legislation for classification. Therefore, consider the concentration of the individual dangerous substances possibly mentioned in section. 3, to evaluate the toxicological effects deriving from exposure to the product.
The product is corrosive and can cause burns on the superficial layer of the skin, with redness, heat and burning sensation. In more serious cases, vesiculation may appear which causes severe burning and pain. In contact with the eyes it causes serious injuries and can cause: opacity of the cornea, damage to the iris, irreversible coloring of the eye. The vapors and/or dust are caustic for the respiratory system and can cause pulmonary edema, the symptoms of which sometimes become apparent only after a few hours.
Symptoms of exposure may include: burning sensation, cough, asthmatic breathing, laryngitis, shortness of breath, headache, nausea and vomiting.
Ingestion can cause burns to the mouth, throat and esophagus; vomiting, diarrhea, edema, swelling of the larynx and consequent suffocation. Perforation of the gastrointestinal tract may also occur.
a) acute toxicity:
Based on calculation and data on raw materials, the mixture does not present this hazard.
b) Skin corrosion/irritation:
Based on calculation, pH and data on raw materials, the mixture presents this hazard (Skin corrosion)

c) Serious eye damage/irritation:
Based on calculation and data on raw materials, the mixture presents this hazard (Eye damage)
d) respiratory or skin sensitization:
Based on calculation and data on raw materials, the mixture does not present this hazard
e) germ cell mutagenicity:
Based on calculation and data on raw materials, the mixture does not present this hazard
f) carcinogenicity:
Based on calculation and data on raw materials, the mixture does not present this hazard
g) reproductive toxicity:
Based on calculation and data on raw materials, the mixture does not present this hazard
h) STOT — single exposure:
Based on calculation and data on raw materials, the mixture does not present this hazard
i) STOT — repeated exposure:
Based on calculation and data on raw materials, the mixture does not present this hazard
j) aspiration hazard:
Based on calculation and data on raw materials, the mixture does not present this hazard

11.2. Information on other hazards
11.2.1. Endocrine disrupting properties
The mixture does not contain substances listed for endocrine system disrupting properties in percentages greater than 0.1%.
11.2.2. Other information
/

SECTION 12. Ecological information.

Use according to good working practices, avoiding dispersing the product into the environment. Notify the competent authorities if the product has reached waterways or sewers or if it has contaminated the soil or vegetation.

12.1. Toxicity.
Aquatic toxicity: The mixture is not dangerous for the environment.
12.2. Persistence and 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 greater than 0,1%.
12.6. Endocrine disrupting properties.
The mixture does not contain substances listed for endocrine system disrupting properties in percentages greater than 0.1%.
12.7. Other adverse effects.
Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse if possible. Product residues are to be considered hazardous special waste. The dangerousness of waste which partly contains this product must be assessed on the basis of current legislative provisions. Disposal must be entrusted to a company authorized to manage waste, in compliance with national and possibly local regulations.
Transport of waste may be subject to ADR.
CONTAMINATED PACKAGING
Contaminated packaging must be sent for recovery or disposal in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number or ID number.
1760
14.2. UN proper shipping name.
CORROSIVE LIQUID, N.O.S. (SULPHAMIC ACID)
14.3. Transport hazard class(es).
8.

14.4. Packing group.
III.
14.5. Environmental hazards.
Not hazardous for the environment.
14.6. Special precautions for user.
ADR/RID: Limited quantity 5L.
IMDG: Limited quantity 5L.

IATA: Limited quantity 5L.
14.7. Maritime transport in bulk according to IMO instruments.
Information not applicable.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.
Seveso category. None
Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.
Product. Point. 3

Substances in Candidate List (Art. 59 REACH). None.
Substances subject to authorization (Annex XIV REACH). None.
Substances subject to exportation reporting pursuant to (EC) Reg. 689/2008: None.
Substances subject to the Rotterdam Convention: None
Substances subject to the Stockholm Convention: None.

15.2. Chemical safety assessment.
No chemical safety assessment has been processed for the mixture. If available, on request can be produced safety assessment of single component.

SECTION 16. Other information.

Full text of H-Statements referred to under sections 2 and 3
Eye Dam. 1: Serious eye damage, Category 1
Skin Corr. 1A: Skin corrosion, Category 1A
Eye Irrit. 2: Eye irritation, Category 2
Skin Irrit. 2: Skin irritation, Category, 2
Aquatic Chronic 3 : Dangerous for the aquatic environment, chronic toxicity, category 3

H314: Causes severe skin burns and eye damage.
H318: Causes serious eye damage.
H319: Causes serious eye irritation.
H315: Causes skin irritation.
H412: Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labelling 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 NUMBER: 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: EC Regulation 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 STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation.
- WGK: Aquatic Hazards Class (Germany).

GENERAL BIBLIOGRAPHY
1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EC) 286/2011 (II Atp. CLP)

5. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
6. Regulation (UE) 487/2013 of the European Parliament (IV Atp. CLP)
7. Regulation (UE) 944/2013 of the European Parliament (V Atp. CLP)
8 . Regulation (UE) 605/2014 of the European Parliament (VI Atp. CLP)
9. Regulation (CE) 830/2015 of the European Parliament (VI Atp. CLP) amending Regulation (EC) No 1907/2006 (REACH)
10. Regulation (EU) 2015/1221 of the European Parliament (VII ATP CLP)
11 Regulation (EU) 2016/918 of the European Parliament (VIII ATP CLP)
12 Regulation (EU) 2016/1179 of the European Parliament (IX ATP CLP)
13 Regulation (EU) 2017/776 of the European Parliament (X ATP CLP)
14 Regulation (EU) 2018/669 (XI ATP CLP)
15 Regulation (EU) 2018/1480 (XIII ATP CLP)
16 Regulation (EU) 2019/521 (XII ATP CLP)
17 Regulation (EU) 2020/878
18. The Merck Index. - 10th Edition
19. Handling Chemical Safety
20. Niosh - Registry of Toxic Effects of Chemical Substances
21. INRS - Fiche Toxicologique (toxicological sheet)
22. Patty - Industrial Hygiene and Toxicology
23. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
24. ECHA website
25. MSDS of single components.

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.

Modified parts: 01, 02, 03, 04, 05, 07, 08, 09, 10, 11, 12, 14, 15, 16.