SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY /UNDERTAKING*

1.1. Identification of the substance

- Code: [KMC100] 484000000330 - [KMC200] 484000000934
- Denomination: Express O² Tablet detergent (page 1) + Descaler (page 9)

1.2. Relevant identified uses of the substance or mixture and uses advised against use of the substance/preparation: coffee machine descaler/detergent.

1.3. Information about manufacturer of Safety data sheet

- Company name: Synt Chemical S.r.l.
- Address: Via Armando Gagliani, 5
- City and Country: 40069 Zola Predosa (BO) - ITALIA
- Telephone: Tel. 051 752332 - Fax 051 754945
- e-mail of the safety responsible person: laboratorio@syntchemical.it
- Responsible of material data sheet: Dr. Silvano Invernizzi

1.4. Emergency telephone number

For urgent safety information call the Anti-Poison Center of your country. Check the emergency list on page 17.

Espress O² Tablet detergent

2. HAZARD IDENTIFICATION.*

2.1. Classification of the preparation or mixture.

The mixture is classified as dangerous according to Directive 67/548/EEC and Regulation 1999/45/EC and/or Regulation 1272/2008 (CLP) (and following amendments or revision).

For this reason the products requires a safety data sheet conform to directive of regulations (CE) 1907/2006 and modifications. Further information on human health and/or environmental risk is detailed in section 11 and 12 of this document.

Classification and symbol:
- Danger Symbol: Xi
- R-phrase: 41

Full test of R-phrase and Hazard is detailed in section 16 of this document.
2.2. Data on Label.
Danger labeling according to Directive 67/548/EEC and Directive 1999/45/EC (and following revision and amendments)

Symbol:

\[
\text{Xi}
\]

**IRRITANT**

**Danger:**

- **R41** Risk of serious damage to eyes.

**S phrase:**

- **S2** Keep out of the reach of children
- **S26** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- **S46** If swallowed, seek medical advice immediately and show this container or label.
- **S24/25** Avoid contact with skin and eyes.

2.3. Other hazards.
Information not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS.*

3.1. Substances
Not applicable.

3.2. Mixture.
Contains

<table>
<thead>
<tr>
<th>Identification</th>
<th>Conc. %</th>
<th>Classification according to 67/548/CEE.</th>
<th>Classification according to 1272/2008 (CLP).</th>
</tr>
</thead>
</table>
| SODIUM PERCARBONATE  
CAS. 15630-89-4  
CE. 239-707-6  
INDEX.  01-2119457268-30 | 20-24% | O R8, Xn R22, Xi R41 | Ox Sol.3 H 272 Acute Tox. 4 H302 Eye Dam. 1 H318 |
| 1-HYDROXYETHYLIDENE-1,1-DIPHOSPHONIC ACID SODIUM SALT  
CAS. 2666-14-0  
CE.  INDEX. – N° REGISTRAZ. | 2-5% | Xi R36 Xn R22 | Acute Tox. 4 H302 Eye Irrit. 2 H319 |
| SODIUM CARBONATE  
CAS. 497-19-8  
CE. 207-838-8  
INDEX. 011-005-00-2  
N° REGISTRAZ. 01-2119485498-19-XXXX | 45-55% | Xi R36 | Eye Irrit. 3 H319 |
| SODIUM SILICATE  
CAS. 1344-09-8  
CE. 215-687-4  
INDEX. - | 5-8% | Xi R41 Xi R37/38 | Skin Irrit. 2 H315 STOT SE 3 H335 |
| DODECILBENZENESULFONIC ACID , SODIUM SALT  
CAS. 68411-30-3  
CE.982-051-8  
INDEX. – NR. REGISTRAZIONE 01-2119565112-48 | 2-3.5% | Xi R41, Xi R38 | Skin Irrit. 2 H315, Eye Dam. 1 H318 |

T+ = Very toxic (T+), T = Toxic (T), Xn = Harmful (Xn), C = Corrosive (C), Xi = Irritant (Xi), O = Oxidising (O), E = Explosive (E), F+ = Extremely Flammable (F+), F = Easily Flammable (F)
Full test of R-phrase and H phrase is detailed in section 16 of this document

**COMPONENTS CONFORM TO REGULATION CE N.648/2004**
Contains oxygen based bleaching agents 15-30%, anionic surfactants. Nonionic surfactants. Phosphonates, polycarboxylate < 5%,

4. **FIRST AID MEASURES.***
Take off immediately all contaminated clothing. If unconsciousness may be possible move away to fresh air, give oxygen or artificial respiration if needed Personal protective equipment for first aid responders is recommended.

4.1. **First aid instructions.**
EYES: Wash immediately, thoroughly with plenty of water for at least 15 minutes. After protect eyes with sterile and dry gauze or cotton. Remove contact lenses if possible. Consult an ophthalmologist.
SKIN: Wash off immediately with plenty of water. Take off immediately all contaminated clothing. If irritation persists, seek medical advice. Wash contaminated clothing before using.
INHALATION: Take the affected person away from contaminated area to fresh air. High concentration may cause asphyxia. Symptoms may include immobility or unconsciousness. Move to fresh air and keep warm and rest. First aid responder have to wear self-contained breathing apparatus. Artificial respiration only if breath is ceased. Seek immediately medical advice.
INGESTION: rinse immediately the mouth. Seek immediately medical advice. Induce vomiting only on medical supervision. Do not give anything to the person if unconscious and without medical authorization.

4.2. **Most important symptoms and effects, both acute and delayed**
For related symptom due to contained substance please refer to section 11.

4.3. **Indication of any immediate medical attention and special treatment needed**
If incident occur, seek medical advice immediately and following instructions. If possible show Safety information.

5. **FIREFIGHTING MEASURES.***

5.1. **Extinguishing media**
SUITE EXTINGUISHING MEDIA:
Water, do not use other substances
UNSUITABLE EXTINGUISHING MEDIA:

5.2. **Special hazards arising from the substance or mixture**
Avoid inhalation of gas spread from explosion or fires. By contact with other materials may cause fire or fasten the combustion.

5.3. **Advice for fire-fighter.**
GENERAL INFORMATION
If possible stop the spilling. Move away from the container, delimiting area and flush water from protected site. Do not extinguish fire due to probable explosive reigniting. Extinguish secondary fire. Cool other container, or product from a well-protected position to avoid heating and overheating.
If a leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapour and to protect personnel attempting to stop a leak.

PROTECTIVE EQUIPMENT
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
6. **ACCIDENTAL RELEASE MEASURES.***

6.1. **Personal precautions, protective equipment and emergency procedures**
Avoid dust formation. Do not breathe dust. Isolate and evacuate the area. Provide proper ventilation. Wear appropriate protective equipment and clothing during clean-up. Wear appropriate breathing apparatus if air is contaminated. Shut off and avoid any ignition source in contaminated area. Individuals without appropriate protective equipment should be excluded from area of spill until clean-up has been completed. For further information about risk on human health, environment and protective equipment, refer to other section of this document.

6.2. **Environmental precautions.**
Avoid release into sewerage, surface water, groundwater. Advise immediately authorities in case of loss or spilling.

6.3. **Methods and material for containment and cleaning up.**
Contain and collect the product and place in a container for disposal. Clean spill area thoroughly with water. Well ventilated the area. Disposal of contaminated materials according to section 13.

6.4. **Reference to other sections.**
Information regarding personal protective equipment and its disposal (if needed) is given in sections 8 and 13.

7. **HANDLING AND STORAGE.***

7.1. **Precautions for safe handling.**
Keep away from food and drinks. Do not swallow the product. Use appropriate grounding and bonding practices. Operate in well-ventilated area. Use only specific equipment. Do not smoke and eating when handling the product. Keep away from acid, alkali, metallic salts, reducing agents, organic material and flammable substances.

7.2. **Conditions for safe storage, including any incompatibilities.**
Product reactive to humidity. Store in a cool, well-ventilated area, away from direct sunlight. Store at temperature inf. 40°C.

7.3. **Specific end use.**
Coffee machine detergent

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION.***

<table>
<thead>
<tr>
<th>Description</th>
<th>Parameters</th>
<th>Country</th>
<th>TWA/8h mg/m³</th>
<th>ppm</th>
<th>STEL/15min mg/m³</th>
<th>ppm</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>SODIUM CARBONATE</td>
<td>TLV-ACGIH</td>
<td></td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SODIUM SILICATE</td>
<td>TLV-ACGIH</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(C) = CEILING

8.1. **Exposure controls**
As the use of appropriate technical measures should always take priority over personal protective equipment, ensure good ventilation in the workplace through effective local exhaust ventilation or by removing stable air. If you exceed the threshold value or one or more of the substances in the preparation due to daily exposure in the work environment or a fraction determined by the corporate prevention and security service, wear an appropriate breathing mask. Refer to the product label for further details. Request further information to chemicals supplier about proper protective equipment. Protective equipment must fullfil Legislation requirement.
HANDS PROTECTION
Protect your hands with work gloves, category I (Directive 89/686/EEC and EN 374) such as PVC, PVA, neoprene, nitrile, PTFE viton latex, or equivalent.

EYES PROTECTION
Face shields. (see standard EN 166).

RESPIRATORY PROTECTION
If you exceed the threshold value of one or more of the substances in the preparation due to daily exposure in the work environment or a fraction determined by the corporate prevention and security service, wear a mask with or universal or type 8 filter whose class should be chosen according to the limit concentration far use (refer to Standard EN 141).

9. PHYSICAL AND CHEMICAL PROPERTIES.*

9.1. Information on basic physical and chemical properties.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apperance</td>
<td>Tabs</td>
</tr>
<tr>
<td>Colour</td>
<td>White</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless</td>
</tr>
<tr>
<td>pH sol. 10%</td>
<td>11.2</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>ND (not available)</td>
</tr>
<tr>
<td>Melting point</td>
<td>ND (not available)</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>ND (not available)</td>
</tr>
<tr>
<td>Flammability (solid, gas);</td>
<td>ND (not available)</td>
</tr>
<tr>
<td>Self flammability</td>
<td>ND (not available)</td>
</tr>
<tr>
<td>explosive limits</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>60°C</td>
</tr>
<tr>
<td>Relative density at 20°C</td>
<td>1.2 g/mL</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Soluble</td>
</tr>
<tr>
<td>Liposolubility</td>
<td>ND (not available)</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>ND (not available)</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>ND (not available)</td>
</tr>
<tr>
<td>Vapours density</td>
<td>ND (not available)</td>
</tr>
<tr>
<td>Oxydizing property</td>
<td>Oxidizer</td>
</tr>
</tbody>
</table>

9.2. Other information.
Information not available.

10. STABILITY AND REACTIVITY.*

10.1. Reactivity.
Sodium Percarbonate: Reactive and oxidizing agent
Sodium Carbonate: at contact with acids reacts spreading CO2

10.2. Chemical stability
Product is stable in normal condition and storage.

10.3. Possibility of hazardous reactions.
Avoid conditions of humidity and heat
Avoid in any case contact with incompatible material
10.4. Conditions to avoid.
Avoid heating and overheating

10.5. Incompatible materials.
Sodium Percarbonate: reducing agents, acids, bases, heavy metal salts, organic materials, flammable materials.

10.6. Hazardous decomposition products.
In case of fire or decomposition may spread gas and vapors potentially harmful for health as CO2, carbon mono-oxide

11. TOXICOLOGICAL INFORMATION.*

11.1. Information on toxicological effects.
Contact with eyes causes severe damages.
Swallowing may cause damage to mouth, gorge and gullet; vomit, diarrhea, edema, blowing up of larynx.
May happen the perforation of gastro-intestinal tract.

SODIUM PERCARBONATE
LD50 oral: 1034 mg/kg (rat)
LC 50 inhalation: 1200mg/mc (rat) sodium carbonate
LC 50 inhalation: > 170mg/mc (rat) hydrogen peroxide
LD 50 skin rabbit: >2000mg/Kg 24h
Severe irritation to rabbit eyes
Mutagenicity: none effect of mutagenicity
Carcinogenicity: no compounds known or expected from IARC

SODIUM CARBONATE
DL50 rat (oral): 2800 mg/kg
CL50 pig (inhalation): 0,8 mg/l/2 h
CL50 rat (inhalation): 1,2mg/l 2h
CL50 rat (inhalation): 2,3mg/l 2h
DL50 rabbit (skin): >2000mg/Kg
Irritation – Valuation of the irritant effect : not irritating to skin. Risk of severe damage to eyes.

SODIUM SILICATE
LD50 (Oral): 1300-2200 mg/kg (rat)
Primary irritability:
For inhalation: the product may cause soft irritation to mucous upper respiratory tract
For contact with eyes: may cause irritation, prolonged and repeated exposure may cause severe damage to eyes.
On skin: irritant

1-HYDROXYETHYLIDENE-1,1-DIPHOSPHONIC ACID SODIUM SALT
LD50 (Oral): >2000 mg/kg (rat)
LC50 (inhalation): >300 mg/kg 96h (Salmo Gairdneri)
Primary irritability:
on skin (Rabbit OECD404): no irritant effects
on eyes (Rabbit OECD 405): Irritant
Sensibilisation (Guinea Pig OECD 406): no sensibilisation effects are known.

DODECILBENZENESULFONIC ACID, SODIUM SALT
LD50 (Oral): > 2000 mg/kg (rat)
LD50 (skin): >2000mg/Kg (rat)
Causes irritation to skin and severe damage to eyes.
Sensibilization: Not sensibilisation
Mutagenicity: Not Mutagenicity OECD TG 471
12. ECOLOGICAL INFORMATION.*
Use according good working practice; avoid spreading the product into environment
Advise immediately authorities in case of lose or spilling.

12.1. Toxicity.

SODIUM PERCARBONATE
Toxicity fishes: Cl50 (96 h) 70,7 mg/L, Pimephales promelas.
Toxicity Daphnia: CE50 (48 h) 4,9 mg/L, Daphnia pulex

SODIUM CARBONATE
LC50 (96 h): 300mg/L Lepomis macrochirus
EC50 (48 h): 200-227mg/L Ceriodaphnia dubia

SODIUM SILICATE
No specific data are available for this product

1-HYDROXYETHYLIDENE-1,1-DIPHOSPHONIC ACID SODIUM SALT
LC50 (48 h): >100mg/L (Daphnia magna)

DODECILBENZENESULFONIC ACID, SODIUM SALT
CE50 (48 h): 1 – 10 mg/L Daphnia magna
EC50 (72 h): 10 – 100 mg/L Desmodesmus subspicatus
CL50 (96h): 1-10mg/l Ciprinus carpio

12.2. Persistence and degradability
No data available for mixture.
SODIUM PERCARBONATE: subject to hydrolyze releasing Sodium carbonate and hydrogen peroxide.
SODIUM CARBONATE: easy to hydrolyze
SODIUM SILICATE: no specific data available for this product.
DODECILBENZENESULFONIC ACID, SODIUM SALT: readily biodegradable >70 % (28 d); OECD TG 301 A
1-HYDROXYETHYLIDENE-1,1-DIPHOSPHONIC ACID SODIUM SALT
Biodegradability > 60% OECD 302B. Value of COD = a 900mg/g (Std. Method 5220D).

No data available for mixture.
SODIUM PERCARBONATE: product is not bio accumulative for aquatic environment.
SODIUM CARBONATE: no important effect of bio accumulative are known.
SODIUM SILICATE: no specific data available for this product

12.4. Mobility in soil.
No data available for mixture.
SODIUM PERCARBONATE: soluble in water and mobile, it is not absorbed in significant way from soil.
SODIUM CARBONATE: no specific data available for this product.
SODIUM SILICATE: no specific data available for this product.

12.5. Results of PBT and vPvB assessment.
No data available for mixture.
No substances PBT and vPvB contained.

12.6. Other adverse effects.
No data available for mixture.

13. DISPOSAL CONSIDERATIONS.*

13.1. Waste treatment methods
Recycle, if possible. Act in accordance with local and national regulations. Refer to current national legislation.
Do not release into sewerage. Do not pollute watercourses. Residues have to be considered as dangerous waste.
CONTAMINATED PACKAGING
Indications: empty containers shall not be released to the environment.
Remarks: user has to ensure that no other regional or national rules are in force.

14. TRANSPORT INFORMATION

Product not classified dangerous for transport

Road and Railway Transport:
Shipping transport:
Air transport:

15. REGULATORY INFORMATION.*

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.
This document has been written following scheme and rules of below Directive and Regulation
It is underlined that this mixture is for food application, hence it is out of the scope of the below Legislation.

1. Directive1999/45/EC and following amendments;
2. Directive 67/548/EEC e and following amendments;

When applicable, refer to following directive: D.Lgs. 21 September 2005 n. 238 (Directive Seveso Ter)

Seveso class. None

Restriction related to the mixture or contained substance, according to Annex XVII, Regulation EC 1907/2006. Point 3

Substance in Candidate List (Art. 59 REACh). None

Substance edified for Authorization (Annex XIV REACh). None

Sanitary controls.
Workers exposed to this chemical agent must be monitored far health issues according to Legislation.

15.2. Chemical safety assessment.

Not available

16. OTHER INFORMATION.*

Full Danger and H-phrase indicated in section 2-3 of this document

Acute Tox. 4 Acute toxicity, category 4
Eye Dam. 1 severe damage to eyes, category 1
Ox Sol. 3 May intensify fire; oxidizer
Eye Irrit. 2 Cause severe irritation to eyes
Skin Irrit. 2 May cause eye irritation
STOT SE 3 may be irritating to respiratory system
H272 May intensify fire; oxidizer
H302 Harmful if swallowed.
H319 Causes serious eye irritation
H315 Causes skin irritation.
H335 May irritate respiratory system.
H318 Causes severe damage to eyes.
H332 Harmful if inhaled.
Full Danger and R-phrase indicated in section 2-3 of this document

R8 Contact with combustible material may cause fire.
R22 Harmful if swallowed
R36 Irritating to eyes.
R41 Risk of serious damage to eyes.
R36 Irritating to eyes.
R37/38 Irritating to respiratory system and skin
R38 Irritating to skin.

**Note H** The classification and label shown for this substance applies to the dangerous property(ies) indicated by the risk phrase(s) in combination with the category(ies) of danger shown. Manufacturers, importers and downstream users of this substance shall be obliged to carry out an investigation to make themselves aware of the relevant and accessible data which exists for all other properties to classify and label the substance. The final label shall follow the requirements of section 7 of Annex VI to Directive 67/548/EEC.

**Note K** The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w 1,3-butadiene (EINECS No 203-450-8). If the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P210-P403 (Table 3.1) or the S-phrases (2-)9-16 (Table 3.2) should apply. This note applies only to certain complex oil-derived substances in Part 3.

**Note S** This substance may not require a label according to Article 17 (see section 1.3 of Annex I) (Table 3.1). This substance may not require a label according to Article 23 of Directive 67/548/EEC (see section 8 of Annex VI to that Directive) (Table 3.2).

**Note U** When put on the market gases have to be classified as ‘Gases under pressure’, in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case.

**LITERATURE:**
1. The Merck Index. Ed. 10
2. Handling Chemical Safety
3. Niosh - Registry of Toxic Effects of Chemical Substances
4. INRS - Fiche Toxicologique
5. Patty - Industrial Hygiene and Toxicology

**Note for the user:**
The information on this sheet is based on information that was available at our premises as of the date of the last version. The user must make sure such information is complete in relation to the specific use being made of the product. Said document must not be interpreted as a guarantee of any specific property of the product. Since the use of the product is not under our direct control, it is the responsibility of the user to observe the law and other provisions in force on matters of health and safety. We shall not be held liable for any improper uses.

**Espres O² Descaler**

2. **HAZARD IDENTIFICATION.**

2.1. **Classification of the preparation or mixture.**
The mixture is classified as dangerous according to Directive 67/548/EEC and Regulation 1999/45/EC and/or Regulation 1272/2008 (CLP) (and following amendments or revision).
For this reason the products requires a safety data sheet conform to directive of regulations (CE) 1907/2006 and modifications.
Further information on human health and/or environmental risk is detailed in section 11 and 12 of this document.

**Classification and symbol:**
Danger Symbol: Xi
R-phrase: 41

Full test of R-phrase and Hazard is detailed in section 16 of this document
2.2. Data on Label.
Danger labeling according to Directive 67/548/EEC and Directive 1999/45/EC (and following revision and amendments)

Symbol:

\[ \textbf{Xi} \]

\textbf{IRRITANT}

Danger:
\textbf{R41} Risk of serious damage to eyes.

\textbf{S phrase:}
\textbf{S2} Keep out of the reach of children.
\textbf{S24/25} Avoid contact with skin and eyes.
\textbf{S26} In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
\textbf{S46} If swallowed, seek medical advice immediately and show this container or label.

2.3. Other hazards.
Information not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS. *

3.1. Substances
Not applicable.

3.2. Mixture.
Contains

\begin{tabular}{|l|c|c|c|}
\hline
\textbf{Identification} & \textbf{Conc. %} & \textbf{Classification according to 67/548/CEE.} & \textbf{Classification according to 1272/2008 (CLP).} \\
\hline
Citric Acid & 90-98% & Xi R41 & Eye Dam. 1 H318, Skin Irrit. 2 H315 \\
CAS. 77-92-9 & & & \\
CE. - 201-069-1 & & & \\
INDEX. – N° Registr. 01-2119457026-42 & & & \\
\hline
\end{tabular}

T+ = Very toxic(T+), T = Toxic (T), Xn = Harmful(Xn), C = Corrosive (C), Xi = Irritant(Xi), O = Oxidising (o), E = Explosive(E), F+ = Extremely Flammable (F+), F = Easily Flammable (F)

Full test of R-phrase and H phrase is detailed in section 16 of this document

COMPONENTS CONFORM TO REGULATION CE N.648/2004

4. FIRST AID MEASURES. *
Take off immediately all contaminated clothing. If unconsciousness may be possible move away to fresh air, give oxygen or artificial respiration if needed Personal protective equipment for first aid responders is recommended.

4.1. First aid instructions.
EYES: Wash immediately, thoroughly with plenty of water for at least 15 minutes. After protect eyes with sterile and dry gauze or cotton Remove contact lenses if possible. Consult an ophthalmologist.
SKIN: Wash off immediately with plenty of water. Take off immediately all contaminated clothing. If irritation persist, seek medical advice. Wash contaminated clothing before using.

INHALATION: Take the affected person away from contaminated area to fresh air. Symptoms may include immobility or unconsciousness. Move to fresh air and keep warm and rest. First aid responder have to wear self-contained breathing apparatus. Artificial respiration only if breath is ceased. Seek immediately medical advice.

INGESTION: rinse immediately the mouth. Seek immediately medical advice. Induce vomiting only on medical supervision. Do not give anything to the person if unconscious and without medical authorization.

4.2. Most important symptoms and effects, both acute and delayed
For related symptom due to contained substance please refer to section 11.

4.3. Indication of any immediate medical attention and special treatment needed
If incident occur, seek medical advice immediately and following instructions. If possible show Safety information.

5. FIREFIGHTING MEASURES.*

5.1. Extinguishing media
SUITABLE EXTINGUISHING MEDIA:
Are the traditional ones: CO2, alcohol resistant foam, powder and water sprayed
UNSUITABLE EXTINGUISHING MEDIA:
None particular

5.2. Special hazards arising from the substance or mixture
Avoid inhalation of gas spread from explosion or fires. They can contain carbon monoxide and other toxic products

5.3. Advice for fire-fighter.
GENERAL INFORMATION
Delimit area and flush water from protected site. Cool other container, or product from a well-protected position to avoid heating and overheating. If a leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapour and to protect personnel attempting to stop a leak

PROTECTIVE EQUIPMENT
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode

6. ACCIDENTAL RELEASE MEASURES.*

6.1. Personal precautions, protective equipment and emergency procedures
Avoid dust formation. Do not breathe dust. Isolate and evacuate the area. Provide proper ventilation. Wear appropriate protective equipment and clothing during clean-up. Wear appropriate breathing apparatus if air is contaminated.

6.2. Environmental precautions.
Avoid release into sewerage, surface water, groundwater. Advise immediately authorities in case of loss or spilling.

6.3. Methods and material for containment and cleaning up.
Contain and collect the product and place in a container for disposal. Clean spill area thoroughly with water. Well ventilated the area. Disposal of contaminated materials according to section 13.

6.4. Reference to other sections.
Information regarding personal protective equipment and its disposal (if needed) is given in sections 8 and 13.
7. HANDLING AND STORAGE.*

7.1. Precautions for safe handling.
Prevent the dispersion of the powder and operate in well-ventilated area. Avoid contact with skin and eyes. Avoid swallowing and inhalation.

7.2. Conditions for safe storage, including any incompatibilities.
Store in a cool, well-ventilated area. Keep containers well closed and labelled. Store far from incompatible substances.

7.3. Specific end use.
Coffee machine descaler

8. EXPOSURE CONTROLS/PERSONAL PROTECTION.*

8.1. Exposure controls
As the use of appropriate technical measures should always take priority over personal protective equipment, ensure good ventilation in the workplace through effective local exhaust ventilation or by removing stable air. If you exceed the threshold value or one or more of the substances in the preparation due to daily exposure in the work environment or a fraction determined by the corporate prevention and security service, wear an appropriate breathing mask. Refer to the product label for further details. Request further information to chemicals supplier about proper protective equipment. Protective equipment must fulfill Legislation requirement.

HANDS PROTECTION
Protect your hands with work gloves, category I (Directive 89/686/EEC and EN 374) such as PVC, PVA, neoprene, nitrile, PTFE viton latex, or equivalent.

EYES PROTECTION
Face shields. (see standard EN 166).

RESPIRATORY PROTECTION
If you exceed the threshold value of one or more of the substances in the preparation due to daily exposure in the work environment or a fraction determined by the corporate prevention and security service, wear a mask with or universal or type 8 filter whose class should be chosen according to the limit concentration far use (refer to Standard EN 141).

9. PHYSICAL AND CHEMICAL PROPERTIES.*

9.1. Information on basic physical and chemical properties.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Solid</td>
</tr>
<tr>
<td>Colour</td>
<td>White</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless</td>
</tr>
<tr>
<td>pH</td>
<td>ND (not available)</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>ND (not available)</td>
</tr>
<tr>
<td>Melting point</td>
<td>ND (not available)</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>ND (not available)</td>
</tr>
<tr>
<td>Flammability (solid, gas);</td>
<td>not flammable</td>
</tr>
<tr>
<td>Self flammability</td>
<td>ND (not available)</td>
</tr>
<tr>
<td>explosive limits</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>ND (not available)</td>
</tr>
<tr>
<td>Relative density at 20°C</td>
<td>1.665 g/mL</td>
</tr>
</tbody>
</table>
Solubility in water: Hydrosolubility 60g/100ml
Liposolubility: ND (not available)
Partition coefficient: n-octanol/water: ND (not available)
Vapour pressure: ND (not available)
Vapours density: ND (not available)
Oxydizing property: ND (not available)

9.2. Other information.
Information not available.

10. STABILITY AND REACTIVITY.*

10.1. Reactivity.
No particular danger reactions with other substances in normal condition of use.

10.2. Chemical stability
Product is stable in normal condition and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions for normal storage and use.

10.4. Conditions to avoid.
None particular. Use normal actions for chemical products. Avoid exposure to heat, naked flames, heat sources. Avoid powders formation. Avoid contact with incompatible substances.

10.5. Incompatible materials.
Strong alkali, comburent substances.

10.6. Hazardous decomposition products.
In case of fire or decomposition may spread gas and vapors potentially harmful for health.

11. TOXICOLOGICAL INFORMATION.*

11.1. Information on toxicological effects.
Contact with eyes causes severe damages.
Swallowing may cause damage to mouth, gorge and gullet;
Contact with skin may cause irritation

Mutagenicity: Not available
Cancerogenity: none components is classified as cancerogenous known or prevue from IARC
Citric acid LD50 (Oral): 3000 mg/kg (rat)
Reproductive toxicity: no data available

12. ECOLOGICAL INFORMATION.*

Use according good working practice; avoid spreading the product into environment
Advise immediately authorities in case of lose or spilling.

12.1. Toxicity.
Toxicity fishes: CL50 (48 h) 440 mg/L, Leuciscus idus melanotus.

12.2 Persistence and degradability
No data available for mixture.

No data available for mixture.
12.4. Mobility in soil.
No data available for mixture.

12.5. Results of PBT and vPvB assessment.
No data available for mixture.

12.6. Other adverse effects.
No data available

13. DISPOSAL CONSIDERATIONS.*

13.1. Waste treatment methods
Recycle, if possible. Act in accordance with local and national regulations. Refer to current national legislation. Do not release into sewerage. Do not pollute watercourses. Residues have to be considered as dangerous waste.

CONTAMINATED PACKAGING
Indications: empty containers shall not be released to the environment.
Remarks: user has to ensure that no other regional or national rules are in force

14. TRANSPORT INFORMATION

Product not classified dangerous for transport
Road and Railway Transport:
Shipping transport:
Air transport:

15. REGULATORY INFORMATION.*

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.
This document has been written following scheme and rules of below Directive and Regulation. It is underlined that this mixture is for food application, hence it is out of the scope of the below Legislation.

1. Directive1999/45/EC and following amendments;
2. Directive 67/548/EEC e and following amendments;

When applicable, refer to following directive: D.Lgs. 21 September 2005 n. 238 (Directive Seveso Ter)

Seveso class. None

Restriction related to the mixture or contained substance, according to Annex XVII, Regulation EC 1907/2006. Point 3

Substance in Candidate List (Art. 59 REACh). None

Substance idefied for Authorization (Annex XIV REACh). None

Sanitary controls.
Workers exposed to this chemical agent must be monitored for health issues according to Legislation.

15.2. Chemical safety assessment.
Not available
16. OTHER INFORMATION.*

Full Danger and H-phrase indicated in section 2-3 of this document

   Eye Dam. 1 severe damage to eyes, category 1
   Skin Irrit. 2 May cause eye irritation cat. 2
   STOT SE 3 May be irritating to respiratory system
   H315 Causes skin irritation.
   H318 Causes severe damage to eyes.

Full Danger and R-phrase indicated in section 2-3 of this document

R41 Risk of serious damage to eyes.

LITERATURE:

1. The Merck Index. Ed. 10
2. Handling Chemical Safety
3. Niosh - Registry of Toxic Effects of Chemical Substances
4. INRS - Fiche Toxicologique
5. Patty - Industrial Hygiene and Toxicology

Note for the user:
The information on this sheet is based on information that was available at our premises as of the date of
the last version. The user must make sure such information is complete in relation to the specific use being
made of the product.

Said document must not be interpreted as a guarantee of any specific property of the product. Since the
use of the product is not under our direct control, it is the responsibility of the user to observe the law and
other provisions in force on matters of health and safety. We shall not be held liable for any improper uses.
### INGREDIENTS SHEET - TABLET DETERGENT

<table>
<thead>
<tr>
<th>COMPONENT IUPAC</th>
<th>INCI NAME</th>
<th>CAS</th>
<th>Pharmacopea name</th>
<th>EINECS</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium carbonate</td>
<td>SODIUM CARBONATE</td>
<td>497-19-8</td>
<td>Natrii carbonas</td>
<td>207-838-8</td>
<td>&gt; 10</td>
</tr>
<tr>
<td>Disodium carbonate, compound with hydrogen peroxide (2:3)</td>
<td>SODIUM CARBONATE PE-ROXIDE</td>
<td>15630-89-4</td>
<td></td>
<td>239-707-6</td>
<td>&gt; 10</td>
</tr>
<tr>
<td>Silicic acid, sodium salt</td>
<td>SODIUM SILICATE</td>
<td>1344-09-8</td>
<td></td>
<td>215-687-4</td>
<td>1-10</td>
</tr>
<tr>
<td>N,N'-ethylenebis (N-acetylacetamide)</td>
<td>TAED</td>
<td>10543-57-4</td>
<td></td>
<td>234-123-8</td>
<td>1-10</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), alpha.-hydro-.omega.-hydroxy</td>
<td>PEG-2M</td>
<td>25322-68-3</td>
<td>Not available</td>
<td></td>
<td>1-10</td>
</tr>
<tr>
<td>Tetrasodium (1-hydroxyethylidene) bisphosphonate</td>
<td>TETRASODIUM ETIDRONATE</td>
<td>3794-83-0</td>
<td></td>
<td>223-267-7</td>
<td>1-10</td>
</tr>
<tr>
<td>2-propenoic acid, homopolymer, sodium salt</td>
<td>SODIUM POLYACRYLATE</td>
<td>25594-84-2</td>
<td>Not available</td>
<td></td>
<td>1-10</td>
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<tr>
<td>Reaction product of benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. And benzenesulfonic acid, 4-methyl-and sodium hydroxide</td>
<td>Not Available</td>
<td>N. CE 932-051-8</td>
<td>Not available</td>
<td></td>
<td>1-10</td>
</tr>
<tr>
<td>C16-18 alcohols, ethoxylated (25 mol EO average molar ratio)</td>
<td>CETEARETH-25</td>
<td>68439-49-6</td>
<td></td>
<td>500-212-8</td>
<td>1-10</td>
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</tbody>
</table>

### INGREDIENTS SHEET - DESCALER

<table>
<thead>
<tr>
<th>COMPONENT IUPAC</th>
<th>INCI NAME</th>
<th>CAS</th>
<th>Pharmacopea name</th>
<th>EINECS</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Hydroxy-1,2,3-propanetricarboxylic acid</td>
<td>CITRIC ACID</td>
<td>77-92-9</td>
<td>Acidum citricum</td>
<td>201-069-1</td>
<td>≥ 10</td>
</tr>
<tr>
<td>Silicon dioxide</td>
<td>SILICA</td>
<td>112945-52-5</td>
<td></td>
<td>231-545-4</td>
<td>1-10</td>
</tr>
</tbody>
</table>
Emergency telephone numbers
For urgent safety information call the Anti-Poison Center of your country:

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>CUSTOMER SERVICE NR.</th>
<th>ANTI-POISON CENTER NR.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUSTRIA</td>
<td>(0043) 050 6700 200</td>
<td>(0043) 01 406 43 43</td>
</tr>
<tr>
<td>BELGIUM</td>
<td>0032 (0)2 263 33 33</td>
<td>(0032) 070 245 245</td>
</tr>
<tr>
<td>CZECK REP.</td>
<td>(00420) 840 111 313</td>
<td>(00420) 224 91 54 02</td>
</tr>
<tr>
<td>DENEMARK</td>
<td>(0045) 44880280</td>
<td>(0045) 82121212</td>
</tr>
<tr>
<td>FINLAND</td>
<td>(09) 61336 235</td>
<td>(09) 471977</td>
</tr>
<tr>
<td>FRANCE</td>
<td>(0033) 0892 700 150</td>
<td>(0033) 01 40 05 48 48</td>
</tr>
<tr>
<td>GERMAN</td>
<td>(0049) 0711 93533655</td>
<td>(0049) 0761 19240</td>
</tr>
<tr>
<td>GREECE</td>
<td>(0030) 2109946400</td>
<td>(0030) 2107793777</td>
</tr>
<tr>
<td>HOLLAND</td>
<td>(0031) (0)76 530 6400</td>
<td>(0031) 030 274 8888</td>
</tr>
<tr>
<td>HUNGARY</td>
<td>(0036) 06 40 109 109</td>
<td>(0036) 80 20 11 99</td>
</tr>
<tr>
<td>IRELAND</td>
<td>(00353) 0844 815 8989</td>
<td>(00353) 1 8092566</td>
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<tr>
<td>ITALY</td>
<td>(0039) 199 580 480</td>
<td>(0039) 02 66101029</td>
</tr>
<tr>
<td>NORWAY</td>
<td>(0047) 22782500</td>
<td>(0047) 22 59 13 00</td>
</tr>
<tr>
<td>POLAND</td>
<td>(0048) 801 900 666</td>
<td>Warszawa: (0048) 22 619 66 54</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gdańsk: (0048) 58 682 04 04</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poznań: (0048) 61 847 69 46</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kraków: (0048) 12 411 99 99</td>
</tr>
<tr>
<td>PORTUGAL</td>
<td>(00351) 707 203 204</td>
<td>(00351) 808 250143</td>
</tr>
<tr>
<td>ROMANIAN</td>
<td>(0040) 0372 117 745</td>
<td></td>
</tr>
<tr>
<td>RUSSIA</td>
<td>007 (495)745 57 31</td>
<td></td>
</tr>
<tr>
<td>SLOVAKIA</td>
<td>(00421) 0850 003 007</td>
<td>(00421) 2 54774166</td>
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<tr>
<td>SPAIN</td>
<td>(0034) 902 203 204</td>
<td>(0034) 915 620 420</td>
</tr>
<tr>
<td>SWEDEN</td>
<td>(0046) 0771 751570</td>
<td>(0046) 08 331231</td>
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<tr>
<td>SWISS</td>
<td>(0041) 0848 801 005</td>
<td>(0041) 145</td>
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<tr>
<td>UK</td>
<td>(0044) 0844 815 8989</td>
<td>(0044) 0845 46 47</td>
</tr>
<tr>
<td></td>
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<td>(0044) 020 7188 0600</td>
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<tr>
<td>UKRAINE</td>
<td>(00380) 0 800 501 150</td>
<td></td>
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</tbody>
</table>