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

1.1. Product identifier
   RAPA PLUS

1.2. Relevant identified uses of the substance or mixture and uses advised against
   Use of the substance/mixture
   - Detergent
   - Biocides (e.g. disinfectants and parasiticide)
     Reserved for industrial and professional use.
   Uses advised against
   No information available.

1.3. Details of the supplier of the safety data sheet
   Company name: DR. SCHNELL GmbH & Co. KGaA
   Street: Taunusstraße 19
   Place: D-80807 München
   Telephone: +49/89/350608-0
   e-mail: info@dr-schnell.de
   Contact person: Josef Feuerstein
   e-mail: sdb@dr-schnell.de
   Internet: www.dr-schnell.de
   Responsible Department: Labor

1.4. Emergency telephone
   Emergency CONTACT (24-Hour-Number) international:
   GBK GmbH +49 (0) 61 32 - 8 44 63

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
   Regulation (EC) No. 1272/2008
   Hazard categories:
     Skin corrosion/irritation: Skin Corr. 1B
     Serious eye damage/eye irritation: Eye Dam. 1
   Hazard Statements:
     May be corrosive to metals.
     Causes severe skin burns and eye damage.

2.2. Label elements
   Regulation (EC) No. 1272/2008
   Hazard components for labelling
     Silicic acid, sodium salt
     Sodium Carbonate Peroxide
     disodium metasilicate
     (1-hydroxyethylidene)bisphosphonic acid, sodium salt
   Signal word: Danger
   Pictograms:

   Hazard statements
   H290 May be corrosive to metals.
   H314 Causes severe skin burns and eye damage.
Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or 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 to according to local / regional / national / international regulations of recycling.

2.3. Other hazards

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1344-09-8</td>
<td>Silicic acid, sodium salt</td>
<td>Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H315 H319 H335</td>
<td>10-&lt;25 %</td>
</tr>
<tr>
<td>15630-89-4</td>
<td>Sodium Carbonate Peroxide</td>
<td>Ox. Sol. 2, Acute Tox. 4, Eye Dam. 1; H272 H302 H318</td>
<td>10-&lt;25 %</td>
</tr>
<tr>
<td>10213-79-3</td>
<td>disodium metasilicate</td>
<td>Skin Corr. 1B, STOT SE 3; H314 H335</td>
<td>&lt;1-10 %</td>
</tr>
<tr>
<td>29329-71-3</td>
<td>(1-hydroxyethylidene)bisphosphonic acid, sodium salt</td>
<td>Acute Tox. 4, Eye Irrit. 2; H302 H319</td>
<td>&lt;1-10 %</td>
</tr>
<tr>
<td>69011-36-5</td>
<td>isotridecanol, ethoxylated</td>
<td>Acute Tox. 4, Eye Dam. 1; H302 H318</td>
<td>1-5 %</td>
</tr>
<tr>
<td>69011-36-5</td>
<td>Isotridecanol, ethoxyliert</td>
<td>Eye Dam. 1, Aquatic Chronic 3; H318 H412</td>
<td>1-5 %</td>
</tr>
</tbody>
</table>

Full text of H and EUH statements: see section 16.

Further Information

Regulation (EC) No. 648/2004 (Detergents regulation)
15 % - < 30 % oxygen-based bleaching agents
5 % - < 15 % nonionic surfactants
< 5 % phosphonates, polycarboxylates, soap perfumes, enzymes, optical brighteners

SECTION 4: First aid measures

4.1. Description of first aid measures
After inhalation
Move victim out of danger zone. Provide fresh air.
In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with skin
After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Wipe dry. In case of skin irritation, seek medical treatment.

After contact with eyes
In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. Protect uninjured eye. To be accompanied by MSDS.

After ingestion
Do NOT induce vomiting.
Rinse mouth immediately and drink plenty of water.
Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed
If applicable, delayed symptoms and effects can be found in section 11., i.e. under section 4.1 for absorption methods.

4.3. Indication of any immediate medical attention and special treatment needed
No special measures are necessary.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Co-ordinate fire-fighting measures to the fire surroundings.
Water spray. / Foam. / Carbon dioxide (CO2). / Dry extinguishing powder.

Unsuitable extinguishing media
High power water jet.

5.2. Special hazards arising from the substance or mixture
Hazardous combustion products
Oxides of carbon
Nitrogen oxides (NOx).
Phosphorus oxides.
Pyrolysis products, toxic.
Heating causes rise in pressure with risk of bursting.
Oxygen separation can cause oxidising.

5.3. Advice for firefighters
In case of fire and/or explosion do not breathe fumes.
In case of fire: Wear self-contained breathing apparatus.
If necessary Full protective suit.

Additional information
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Dispose of waste according to applicable legislation.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Avoid dust formation.
Provide adequate ventilation.
Avoid contact with eyes and skin.
Avoid contact with water. Danger of slipping.

6.2. Environmental precautions
Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not allow to enter into surface water or drains. Leakage into waters, ground or the drainage system, the appropriate authorities must be informed.

6.3. Methods and material for containment and cleaning up
Spilled product must never be returned to the original container for recycling. Treat the recovered material as prescribed in the section on waste disposal. Flush residue with plenty of water.

6.4. Reference to other sections
For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Advice on safe handling
In addition to the information contained in this section, relevant information can also be found in sections 8 and 6.1.

Further information on handling
Provide adequate ventilation.
Avoid dust formation.
Avoid contact with eyes and skin.
When using do not eat, drink or smoke.
Observe instructions for use.
Notice the directions for use on the label.
Working methods should be applied according to operating instructions.
General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and after work.
Keep away from food, drink and animal feedingstuffs.
Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels
Store in a place accessible by authorized persons only.
Store product closed and only in original packing.
Not to be stored in gangways or stair wells.
Suitable floor material: Alkali resistant
Protect from moisture.
Keep container tightly closed.
Storage at room temperature.
Protect against direct sunlight.
Do not store at temperatures over: 40°C
Do not keep the container sealed.

Advice on storage compatibility
Keep away from combustible material.
Keep away from: alkali sensitive and oxidizable materials

7.3. Specific end use(s)
No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Additional advice on limit values
General dust limit:
D: AGW - 3 mg/m³, 10 mg/m³ E (2.4 TRGS 900)
A: MAK-Tmw / TRK-Tmw - 6 mg/m³ (A: respirable dust fraction), 15 mg² (respirable fraction)
8.2. Exposure controls

Appropriate engineering controls
Provide adequate ventilation.
This can be achieved by local exhaust ventilation or general ventilation.
When exceeding the occupational exposure limit (OEL):
Use appropriate respiratory protection.
Applies only if maximum permissible exposure values are listed here.

Protective and hygiene measures
General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and after work.
Keep away from food, drink and animal feedingstuffs.
Contaminated work clothing should not be allowed out of the workplace.

Eye/face protection
Tightly sealed safety glasses. (EN 166)
If necessary Wear face protection.

Hand protection
Chemical-resistant protective gloves (EN 374)
If necessary
Protective gloves of neoprene (EN 374)
Protective gloves of nitrile (EN 374)
Protective gloves of PVC (EN 374)
Hand lotion are recommended.

No tests have been carried out.
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves
mentioned above together with the supplier of these gloves.

Skin protection
Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments)

Respiratory protection
With correct and proper use, and under normal conditions, breathing protection is not required.
If general dust emission limit has been exceeded:Dust mask with fine dust filter recommended (EN 143), white
If necessary P 2 filter (EN 143), white
Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection
apparatus (BGR 190).

Environmental exposure controls
No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: solid, Powder
Colour: white
Odour: Fragranced
pH-Value (at 20 °C): 11 (1%)

Changes in the physical state
Melting point: not determined
Initial boiling point and boiling range: not applicable
Flash point: not applicable

Flammability
Solid: No.
Gas:

No.

Explosive properties
The product is not: Explosive

Lower explosion limits: not applicable
Upper explosion limits: not applicable
Ignition temperature: not determined

Auto-ignition temperature
Solid: not determined
Gas: not determined

Oxidizing properties
not determined

Vapour pressure: not determined
Vapour pressure: not determined
Density: not determined
Bulk density (at 20 °C): 770 kg/m³
Water solubility: easily soluble.

Solubility in other solvents
not determined

Partition coefficient: not determined
Viscosity / dynamic: not applicable
Viscosity / kinematic: not applicable
Vapour density: not determined
Solvent content: not determined

9.2. Other information
Mixability: not determined
Fat solubility (g/l): not determined
Conductivity: not determined
Surface tension: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity
See also Subsection 10.2 to 10.6.
The product has not been tested.

10.2. Chemical stability
See also Subsection 10.1 to 10.6.
Stable with proper storage and handling.

10.3. Possibility of hazardous reactions
See also Subsection 10.1 to 10.6.
No decomposition when used as directed.

10.4. Conditions to avoid
See also section 7.
Protect from moisture.
Keep away from heat.
Protect from sunlight.

10.5. Incompatible materials
See also section 7.
Avoid contact with strong alkalies.
Avoid contact with strong acids.
Reducing agents.
metal.
Metal salt.
material, combustible.

10.6. Hazardous decomposition products
See also Subsection 10.4 to 10.6.
See also section 5.2.
No decomposition when used as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution
Possibly more information on health effects, see Section 2.1 (classification).

Acute toxicity
Based on available data, the classification criteria are not met.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Exposure route</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1344-09-8</td>
<td>Silicic acid, sodium salt</td>
<td>oral</td>
<td>LD50</td>
<td>&gt;2000</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>- mg/kg</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalation vapour</td>
<td>LC50</td>
<td>- mg/l</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>15630-89-4</td>
<td>Sodium Carbonate Peroxide</td>
<td>oral</td>
<td>LD50</td>
<td>1034</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>&gt;2000</td>
<td>Rabbit</td>
<td></td>
</tr>
<tr>
<td>10213-79-3</td>
<td>disodium metasilicate</td>
<td>oral</td>
<td>LD50</td>
<td>- mg/kg</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>- mg/kg</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalation vapour</td>
<td>LC50</td>
<td>- mg/l</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>29329-71-3</td>
<td>(1-hydroxyethylidene)bisphosphonic acid, sodium salt</td>
<td>oral</td>
<td>LD50</td>
<td>- mg/kg</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>- mg/kg</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalation vapour</td>
<td>LC50</td>
<td>- mg/l</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>69011-36-5</td>
<td>isotridecanol, ethoxylated</td>
<td>oral</td>
<td>LD50</td>
<td>&gt;300-2000</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>&gt;2000</td>
<td>Rabbit</td>
<td></td>
</tr>
<tr>
<td>69011-36-5</td>
<td>Isotridecanol, ethoxyliert</td>
<td>oral</td>
<td>LD50</td>
<td>&gt;2000</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>&gt;2000</td>
<td>Rabbit</td>
<td></td>
</tr>
</tbody>
</table>
### Irritation and corrosivity
Causes severe skin burns and eye damage.

### Sensitising effects
Based on available data, the classification criteria are not met.

### Carcinogenic/mutagenic/toxic effects for reproduction
Based on available data, the classification criteria are not met.

### STOT-single exposure
Based on available data, the classification criteria are not met.

### STOT-repeated exposure
Based on available data, the classification criteria are not met.

### Aspiration hazard
Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### 12.1. Toxicity
See section 2.1 (rating) for potentially additional information concerning environmental effects.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Aquatic toxicity</th>
<th>Dose</th>
<th>[h]</th>
<th>[d]</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1344-09-8</td>
<td>Silicic acid, sodium salt</td>
<td>Acute fish toxicity</td>
<td>LC50 mg/l</td>
<td>&gt;100</td>
<td>96 h</td>
<td>Brachydanio rerio (zebra-fish)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15630-89-4</td>
<td>Sodium Carbonate Peroxide</td>
<td>Acute fish toxicity</td>
<td>LC50 mg/l</td>
<td>70.7</td>
<td>96 h</td>
<td>Pimephales promelas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10213-79-3</td>
<td>disodium metasilicate</td>
<td>Acute fish toxicity</td>
<td>LC50 mg/l</td>
<td>210 mg/l</td>
<td>96 h</td>
<td>Brachydanio rerio (zebra-fish)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29329-71-3</td>
<td>(1-hydroxyethylidene)bisphosphonic acid, sodium salt</td>
<td>Acute fish toxicity</td>
<td>LC50 mg/l</td>
<td>&gt;1-10</td>
<td>96 h</td>
<td>Cyprinus carpio (Common Carp)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>69011-36-5</td>
<td>isotridecanol, ethoxylated</td>
<td>Acute fish toxicity</td>
<td>LC50 mg/l</td>
<td>&gt;1-10</td>
<td>96 h</td>
<td>Cyprinus carpio (Common Carp)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>69011-36-5</td>
<td>isotridecanol, ethoxyliert</td>
<td>Acute fish toxicity</td>
<td>LC50 mg/l</td>
<td>&gt;1-10</td>
<td>96 h</td>
<td>Cyprinus carpio (Common Carp)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability
The surfactant contained in this mixture complies with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

12.3. Bioaccumulative potential
No data available

12.4. Mobility in soil
No data available

12.5. Results of PBT and vPvB assessment
No data available

12.6. Other adverse effects
No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal
Dispose of waste according to applicable legislation.
For example: designated incinerator
E.g. dispose at suitable refuse site.
Do not put in household waste.

Waste disposal number of waste from residues/unused products
070413 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of organic plant protection products (except 02 01 08 and 02 01 09), wood preserving agents (except 03 02) and other biocides; solid wastes containing hazardous substances; hazardous waste

Contaminated packaging
Dispose of waste according to applicable legislation.
Completely empty containers
Non-contaminated packages must be recycled or disposed of.
Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 3253
14.2. UN proper shipping name: UN3253 DISODIUM TRIOXOSILICATE, MIXTURE
14.3. Transport hazard class(es): 8
14.4. Packing group: III

Hazard label: 8
Classification code: C6
Limited quantity: 5 kg
Excepted quantity: E1
Transport category: 3
Hazard No: 80
Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number: UN 3253
14.2. UN proper shipping name: UN3253 DISODIUM TRIOXOSILICATE, MIXTURE
14.3. Transport hazard class(es): 8
14.4. Packing group: III

Hazard label: 8
<table>
<thead>
<tr>
<th>Classification code:</th>
<th>C6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited quantity:</td>
<td>5 kg</td>
</tr>
<tr>
<td>Excepted quantity:</td>
<td>E1</td>
</tr>
</tbody>
</table>

### Marine transport (IMDG)

**14.1. UN number:** UN 3253

**14.2. UN proper shipping name:** UN3253 DISODIUM TRIOXOSILICATE, MIXTURE

**14.3. Transport hazard class(es):** 8

**14.4. Packing group:** III

**Hazard label:** 8

**Special Provisions:**
- Limited quantity: 5 kg
- Excepted quantity: E1
- EmS: F-A, S-B

### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number:** UN 3253

**14.2. UN proper shipping name:** UN3253 DISODIUM TRIOXOSILICATE, MIXTURE

**14.3. Transport hazard class(es):** 8

**14.4. Packing group:** III

**Hazard label:** 8

**Special Provisions:**
- A803
- Passenger LQ:
  - IATA-packing instructions: Y845
  - Passenger LQ: 25 kg
  - IATA-max. quantity: 864
- Cargo LQ:
  - IATA-packing instructions: 100 kg
  - IATA-max. quantity: 864

### Environmental hazards

**ENVIRONMENTALLY HAZARDOUS:** no

### Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

### Transport in bulk according to Annex II of Marpol and the IBC Code

Not a hazardous material with respect to these transportation regulations.

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

**EU regulatory information**

2004/42/EC (VOC): 0 %

**Additional information**

For classification and labelling, see section 2.

The identity of every active substance and its concentration in metric units:
- 100 g containing: 15 g Natriumcarbonat-Peroxohydrat; 3,5 g Tetraacetylethylendiamin.
- Max. Release of: 2,3 g Peressigsäure
- Specific use(s): Disinfection

**BAuA registration number (Germany):** Reg.-Nr. N-41765

**Registration number according to "Biozid-Meldeverordnung":** No data available
Observe trade association/occupational health regulations.

To follow:

**National regulatory information**

| Employment restrictions: | Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). |
| Water contaminating class (D): | 2 - clearly water contaminating |

### SECTION 16: Other information

**Changes**

Revised sections: 1, 2, 11, 12, 16

**Abbreviations and acronyms**

- vPvB = very persistent very bioaccumulative
- PBT = persistent bioaccumulative toxic

**Relevant H and EUH statements (number and full text)**

- **H272**: May intensify fire; oxidiser.
- **H290**: May be corrosive to metals.
- **H302**: Harmful if swallowed.
- **H314**: Causes severe skin burns and eye damage.
- **H315**: Causes skin irritation.
- **H318**: Causes serious eye damage.
- **H319**: Causes serious eye irritation.
- **H335**: May cause respiratory irritation.
- **H412**: Harmful to aquatic life with long lasting effects.

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*