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

1.1. Product identifier
PEROCID

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

Use of the substance/mixture
Cleaning agent, acidic
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
Fax: +49/89/350608-47
E-mail: info@dr-schnell.de
Contact person: Josef Feuerstein
Telephone: +49/89/350608-46
E-mail: sdb@dr-schnell.de
Internet: www.dr-schnell.de
Responsible Department: Labor

1.4. Emergency telephone number:
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 Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Hazard Statements:
Causes skin irritation.
Causes serious eye irritation.

2.2. Label elements
Regulation (EC) No. 1272/2008
Signal word: Warning
Pictograms:

Hazard statements
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statements
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P314 Get medical advice/attention if you feel unwell.

Additional advice on labelling
On basis of test data.
2.3. Other hazards

The components in this formulation do not meet the criteria for classification as PBT or vPvB. Low pH-value can be harmful to water. Observe pH value.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Quantity</th>
<th>EC No</th>
<th>Index No</th>
<th>REACH No</th>
<th>GHS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>5329-14-6</td>
<td>sulfamic acid</td>
<td>5-15 %</td>
<td>226-218-8</td>
<td>016-026-00-0</td>
<td></td>
<td>Skin Irrit. 2, Eye Irrit. 2, Aquatic Chronic 3; H315 H319 H412</td>
</tr>
</tbody>
</table>

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

Further Information

- Regulation (EC) No. 648/2004 (Detergents regulation)
- < 5 nonionic surfactants
- perfumes

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.
To be accompanied by MSDS.

After contact with skin
If skin irritation occurs: Get medical advice/attention. After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

After contact with eyes
Rinse immediately carefully and thoroughly with eye-bath or water.
Remove contact lenses, if present and easy to do. Continue rinsing.
In all cases of doubt, or when symptoms persist, seek medical advice.
To be accompanied by MSDS.

After ingestion
Rinse mouth immediately and drink plenty of water.

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.
The following symptoms may occur:
Irritating to eyes and skin.

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

Treat symptomatically. 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.
Unsuitable extinguishing media
High power water jet.

5.2. Special hazards arising from the substance or mixture
Non-flammable. The product itself does not burn.
Hazardous combustion products
Oxides of carbon
Sulfur oxides.
Nitrogen oxides (NOx).
Gas/vapours, toxic.
If necessary Full protective suit.

5.3. Advice for firefighters
Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit. In case of fire
and/or explosion do not breathe fumes.
In case of fire: Wear self-contained breathing apparatus.
Acid-resistant protection clothing (EN 13034)

Additional information
Suppress gases/vapours/mists with water spray jet.
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Avoid contact with skin, eyes and clothes. Use personal protection equipment.
If necessary Caution, slippery

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

6.3. Methods and material for containment and cleaning up
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal.
Neutralisation possible by an expert.
Can be diluted with water
Flush residue with plenty of water.

6.4. Reference to other sections
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13 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.

Advice on protection against fire and explosion
No special fire protection measures are necessary.

Further information on handling
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
- Keep container tightly closed. Not to be stored in gangways or stair wells.
- Store product closed and only in original packing.
- Do not use acid sensitive materials.
- Store separately from alkalis.

Hints on joint storage
- No special measures are necessary.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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
- Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.
- Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. 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
- Suitable eye protection: Tightly sealed safety glasses. (EN166)

Hand protection
- When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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. Recommendation: On short hand contact: rubber gloves. (EN 374)
- No tests have been carried out.

Skin protection
- Wear suitable protective clothing.

Respiratory protection
- In case of inadequate ventilation wear respiratory protection. With correct and proper use, and under normal conditions, breathing protection is not required.

Environmental exposure controls
- No information available.
SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: green
Odour: characteristic
pH-Value: 0.5

Changes in the physical state
Melting point: not determined
Initial boiling point and boiling range: > 100 °C
Flash point: not applicable

Flammability
Solid: not determined
Gas: not determined

Explosive properties
The product is not: Explosive.
Lower explosion limits: not determined
Upper explosion limits: not determined

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

Oxidizing properties
No.
Vapour pressure: not determined
Vapour pressure: not determined
Density: ~1 g/cm²
Bulk density: not applicable
Water solubility: easily soluble.

Solubility in other solvents
not determined
Partition coefficient: not determined
Viscosity / dynamic: not determined
Viscosity / kinematic: not determined
Vapour density: not determined
Evaporation rate: not determined
Solvent content: not determined

9.2. Other information

Solid content: not determined
Mixability: not determined
Fat solubility (g/l): not determined
Solvent: not determined
Conductivity: not determined
Surface tension: not determined
SECTION 10: Stability and reactivity

10.1. Reactivity
The product has not been tested.

10.2. Chemical stability
Stable with proper storage and handling.

10.3. Possibility of hazardous reactions
Avoid contact with other chemicals.

10.4. Conditions to avoid
See also section 7.
No information available.

10.5. Incompatible materials
See also section 7.
Contact with strong alkalis leads to strong exothermic reaction.
Avoid contact with acid sensitive materials.
Possibly extensive generation of hydrogen on contact with amphoteric metals (e.g. aluminium, lead, zinc) (explosive hazard!).

10.6. Hazardous decomposition products
See also section 5.2.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

<table>
<thead>
<tr>
<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>sulfamic acid</td>
<td>oral</td>
<td>LD50</td>
<td>3160</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>mg/kg</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Irritation and corrosivity
Causes skin irritation.
Causes serious eye irritation.

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.

Additional information on tests
The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.1. Toxicity
The product is not: Ecotoxic.

<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>5329-14-6</td>
<td>sulfamic acid</td>
<td>Acute fish toxicity</td>
<td>LC50 mg/l</td>
<td>70.3</td>
<td>96 h</td>
<td>Pimephales promelas</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

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>5329-14-6</td>
<td>sulfamic acid</td>
<td>-4.34</td>
</tr>
</tbody>
</table>

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

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

For example: designated incinerator

E.g. dispose at suitable refuse site.

Waste disposal number of waste from residues/unused products

200130 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); detergents other than those mentioned in 20 01 29

Waste disposal number of used product

200130 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); detergents other than those mentioned in 20 01 29

Waste disposal number of contaminated packaging

150102 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); plastic packaging

Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled. Dispose of waste according to applicable legislation.

Recommendation: Dispose using dual system.
SECTION 14: Transport information

Land transport (ADR/RID)
14.1. UN number: not applicable
14.2. UN proper shipping name: not applicable
14.3. Transport hazard class(es): not applicable
14.4. Packing group: not applicable

Inland waterways transport (ADN)
14.1. UN number: not applicable
14.2. UN proper shipping name: not applicable
14.3. Transport hazard class(es): not applicable
14.4. Packing group: not applicable

Marine transport (IMDG)
14.1. UN number: not applicable

Air transport (ICAO-TI/IATA-DGR)
14.1. UN number: not applicable
14.5. Environmental hazards
ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user
Unless specified otherwise, general measures for safe transport must be followed.

14.7. 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
2010/75/EU (VOC): 0,002 % (0,02 g/l)
2004/42/EC (VOC): 0,002 % (0,02 g/l)

Additional information

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): 1 - slightly water contaminating

15.2. Chemical safety assessment
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes
Revised sections: 2, 16

Additional information:
<10% in aqueous solution: The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].
Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)

H315 Causes skin irritation.
H319 Causes serious eye 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.)