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

1.1. Product identifier

5132 Professional Rim Cleaner G15132K5AB

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

Use of the substance/mixture: Cleaner

1.3. Details of the supplier of the safety data sheet

TUNAP GmbH & Co. KG
Company name:
Street: Bürgermeister-Seidl-Str. 2
Place: D-82515 Wolfratshausen
Telephone: +49 (0) 8171/1600 - 0
Fax: +49 (0) 8171/1600 - 40
E-mail: sdb@tunap.com
Internet: www.tunap.com

1.4. Emergency telephone number:

+49 (0) 30 30 686 790 (Giftnotruf Berlin)

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
- Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:
- Causes severe skin burns and eye damage.
- May cause respiratory irritation.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling:
- Salzsäure 31%
- Isotridecanol, ethoxylated
- Ethoxylated Undecyl Alcohol

Signal word: Danger

Pictograms:

Hazard statements:
- H314 Causes severe skin burns and eye damage.
- H335 May cause respiratory irritation.

Precautionary statements:
- P260 Do not breathe vapours.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P262 Do not get in eyes, on skin, or on clothing.
- P302+P352 IF ON SKIN: Wash with plenty of Water and soap.
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
2.3. Other hazards
No information available.

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>Classification according to Regulation (EC) No 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>69011-36-5</td>
<td>Isotridecanol, ethoxylated</td>
<td>5 - &lt; 10%</td>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 4, Eye Dam. 1; H302 H318</td>
</tr>
<tr>
<td>931-138-8</td>
<td>Ethoxylated Undecyl Alcohol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1; H318</td>
</tr>
<tr>
<td>34590-94-8</td>
<td>(2-methoxymethylethoxy)propanol</td>
<td>5 - &lt; 10%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>252-104-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
First aider: Pay attention to self-protection! Remove persons to safety. Never give anything by mouth to an unconscious person or a person with cramps.

After inhalation
Remove person to fresh air and keep comfortable for breathing. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with skin
Wash with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with eyes
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion
Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. Call a physician in any case!

4.2. Most important symptoms and effects, both acute and delayed
Headache, nausea, dizziness, fatigue, skin irritation

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically.
## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media**
- Co-ordinate fire-fighting measures to the fire surroundings. Water fog. Foam. Carbon dioxide (CO2).
- Extinguishing powder.

**Unsuitable extinguishing media**
- High power water jet.

### 5.2. Special hazards arising from the substance or mixture

- Non-flammable.

### 5.3. Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Move undamaged containers from immediate hazard area if it can be done safely. In case of fire: Wear self-contained breathing apparatus.

**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

- Wear breathing apparatus if exposed to vapours/dusts/aerosols. Remove all sources of ignition. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Wear personal protection equipment.

### 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). Ensure all waste water is collected and treated via a waste water treatment plant.

### 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). Clean contaminated articles and floor according to the environmental legislation.

### 6.4. Reference to other sections

- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Advice on safe handling**
- Do not breathe gas/fumes/vapour/spray.

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

**Further information on handling**
- Avoid contact with skin and eyes.

### 7.2. Conditions for safe storage, including any incompatibilities

**Requirements for storage rooms and vessels**
- Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations.

**Hints on joint storage**
Further information on storage conditions
Store in a cool dry place. Observe legal regulations and provisions.

7.3. Specific end use(s)
Cleaner

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>ppm</th>
<th>mg/m³</th>
<th>fibres/ml</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>34590-94-8</td>
<td>(2-methoxymethylethoxy) propanol</td>
<td>50</td>
<td>308</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td>7647-01-0</td>
<td>Hydrogen chloride (gas and aerosol mists)</td>
<td>1</td>
<td>2</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
</tbody>
</table>
<pre><code>                                                             | 5   | 8     |           | STEL (15 min)| WEL    |
</code></pre>

Additional advice on limit values
- a no restriction
- b End of exposure or end of shift
- c at long term exposure: after several previous shifts
- d before next shift

blood (B)
Urine (U)

8.2. Exposure controls

Appropriate engineering controls
If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures
Avoid exposure. Wear suitable protective clothing. Draw up and observe skin protection programme.

Eye/face protection
- Suitable eye protection: Tightly sealed safety glasses.
- DIN EN 166

Hand protection
- Protect skin by using skin protective cream. 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.
- Suitable material: NBR (Nitrile rubber) Breakthrough time (maximum wearing time) 480min
- Thickness of the glove material 0,45 mm
- DIN EN 374

Skin protection
- Wear suitable protective clothing. Take off immediately all contaminated clothing and wash it before reuse.

Respiratory protection
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.
- When exceeding the relevant workplace exposure limits, note the following:
- Suitable respiratory protective equipment: Combination filter device (DIN EN 141).
- Filtering device with filter or ventilator filtering device of type: E
- Observe the wear time limits as specified by the manufacturer.

Environmental exposure controls
- Observe legal regulations and provisions.
SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: yellow
Odour: characteristic

Test method
pH-Value (at 20 °C): 1 (50 g/l) DIN 19268

Changes in the physical state
Melting point: not determined
Initial boiling point and boiling range: 100 °C
Flash point: > 110 °C ISO 3679

Flammability
Solid: not applicable
Gas: not applicable

Lower explosion limits: not determined
Upper explosion limits: not determined

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

Decomposition temperature: not determined

Oxidizing properties
Not oxidising.
Vapour pressure: not determined
Vapour pressure: No information available.
Density (at 20 °C): 1.1 g/cm³ DIN 51757
Water solubility: completely miscible

Solubility in other solvents
not determined
Partition coefficient: not determined
Viscosity / dynamic: DIN 53019-1
Viscosity / kinematic: DIN EN ISO 3104
(at 40 °C)
Flow time:
(at 20 °C) DIN EN ISO 2431
Vapour density: not determined
Evaporation rate: not determined

9.2. Other information
Solid content: 5%

SECTION 10: Stability and reactivity

10.1. Reactivity
Possibility of hazardous reactions.

10.2. Chemical stability
The product is stable under storage at normal ambient temperatures.
10.3. Possibility of hazardous reactions
Exothermic reaction with: Base, Peroxides, Oxidising agent.

10.4. Conditions to avoid
Do not mix with alkali.

10.5. Incompatible materials
Oxidizing agents. Pyrophoric or self-heating substances.

10.6. Hazardous decomposition products
Incomplete combustion and thermolysis gases of different toxicity can occur. In the case of hydrocarbonaceous products such as CO, CO2, aldehydes and soot. These can be very dangerous if they are inhaled in high concentrations or in enclosed spaces.

Further information
Do not mix with other chemicals.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution
There are no data available on the mixture itself.

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>69011-36-5</td>
<td>Isotridecanol, ethoxylated</td>
<td>oral</td>
<td>ATE</td>
<td>mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34590-94-8</td>
<td>(2-methoxymethylethoxy)propanol</td>
<td>oral</td>
<td>LD50</td>
<td>mg/kg</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5135</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>mg/kg</td>
<td>Rabbit</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>13000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalation vapor</td>
<td>LC50</td>
<td>mg/l</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalation gas</td>
<td>LC50</td>
<td>ppm</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>500</td>
<td></td>
<td></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.
No indications of human carcinogenicity exist.
No indications of human germ cell mutagenicity exist.
No indications of human reproductive toxicity exist.

STOT-single exposure
May cause respiratory irritation. (hydrochloric acid ... %)

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.
Specific effects in experiment on an animal

No information available.

Additional information on tests

The mixture is classified as hazardous according to Directive 1999/45/EC.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity: The classification criteria for this hazard class are not met by definition.

<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></td>
<td></td>
<td>Acute fish toxicity</td>
<td></td>
<td>862 mg/l</td>
<td>96 h</td>
<td>Leuciscus idus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34590-94-8</td>
<td>(2-methoxymethylene)propanol</td>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>862 mg/l</td>
<td>96 h</td>
<td>Leuciscus idus</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute algae toxicity</td>
<td>ErC50</td>
<td>969 mg/l</td>
<td>96 h</td>
<td>Pseudokirchneriella subcapitata</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute crustacea toxicity</td>
<td>EC50</td>
<td>1919 mg/l</td>
<td>48 h</td>
<td>Daphnia magna</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

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

Waste disposal number of waste from residues/unused products

070101 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals; aqueous washing liquids and mother liquors; hazardous waste

Waste disposal number of used product

070101 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals; aqueous washing liquids and mother liquors; hazardous waste

Waste disposal number of contaminated packaging
**Contaminated packaging**

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

### SECTION 14: Transport information

**Land transport (ADR/RID)**

- **14.1. UN number:** UN 3264
- **14.2. UN proper shipping name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Salzsäure 31%)
- **14.3. Transport hazard class(es):** 8
- **14.4. Packing group:** II
- **Hazard label:** 8
- **Classification code:** C1
- **Special Provisions:** 274
- **Limited quantity:** 1 L
- **Excepted quantity:** E2
- **Transport category:** 2
- **Hazard No:** 80
- **Tunnel restriction code:** E

**Inland waterways transport (ADN)**

- **14.1. UN number:** UN 3264
- **14.2. UN proper shipping name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Salzsäure 31%)
- **14.3. Transport hazard class(es):** 8
- **14.4. Packing group:** II
- **Hazard label:** 8
- **Classification code:** C1
- **Special Provisions:** 274
- **Limited quantity:** 1 L
- **Excepted quantity:** E2

**Marine transport (IMDG)**

- **14.1. UN number:** UN 3264
- **14.2. UN proper shipping name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (hydrochloric acid 31 %)
- **14.3. Transport hazard class(es):** 8
- **14.4. Packing group:** II
- **Hazard label:** 8
- **Special Provisions:** 274
- **Limited quantity:** 1 L
- **Excepted quantity:** E2
- **EmS:** F-A, S-B

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

- **14.1. UN number:** UN 3264
- **14.2. UN proper shipping name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (hydrochloric acid 31 %)
- **14.3. Transport hazard class(es):** 8
- **14.4. Packing group:** II
Hazard label: 8
Special Provisions: A3 A803
Limited quantity Passenger: 0.5 L
Passenger LQ: Y840
Excepted quantity: E2
IATA-packing instructions - Passenger: 851
IATA-max. quantity - Passenger: 1 L
IATA-packing instructions - Cargo: 855
IATA-max. quantity - Cargo: 30 L

14.5. Environmental hazards
ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user
Warning: strongly corrosive.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
not applicable

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): No information available.
2004/42/EC (VOC): No information available.

Additional information
Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

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

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

SECTION 16: Other information

Changes
This data sheet contains changes from the previous version in section(s): 2,14.

Abbreviations and acronyms
ADR: Accord européen sur le transport des marchandises dangereuses par Route
(IMF: International 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)
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
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.)