215 High Tech Universal Cleaner

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

1.1. Product identifier

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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

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Indications of danger: Extremely flammable, Irritant, Dangerous for the environment

R phrases:

12 Extremely flammable.
38 Irritating to skin.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
67 Vapours may cause drowsiness and dizziness.

2.2. Label elements

Danger symbols:

F+ - Extremely flammable; Xi - Irritant; N - Dangerous for the environment

R phrases

12 Extremely flammable.
38 Irritating to skin.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
67 Vapours may cause drowsiness and dizziness.

S phrases

23 Do not breathe Aerosol.
24 Avoid contact with skin.
51 Use only in well-ventilated areas.
61 Avoid release to the environment. Refer to special instructions / Safety data sheets.

Special labelling of certain mixtures

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.

Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children.

2.3. Other hazards

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.
SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

<table>
<thead>
<tr>
<th>EC No</th>
<th>Chemical name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>921-024-6</td>
<td>Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic</td>
<td>90 - 95 %</td>
</tr>
<tr>
<td>64742-49-0</td>
<td>F - Highly flammable, Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R11-38-51-53-65-67</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flam. Liq. 2, Skin Irrit. 2, Asp. Tox. 1, STOT SE 3, Aquatic Chronic 2; H225 H315 H304 H336 H411</td>
<td></td>
</tr>
<tr>
<td>203-777-6</td>
<td>n-hexane</td>
<td>1 - 5 %</td>
</tr>
<tr>
<td>601-037-00-0</td>
<td>Flam. Liq. 2, Repr. 2, Asp. Tox. 1, STOT RE 2, Skin Irrit. 2, STOT SE 3, Aquatic Chronic 2; H225 H361f *** H304 H373 ** H315 H336 H411</td>
<td></td>
</tr>
<tr>
<td>204-696-9</td>
<td>carbon dioxide</td>
<td>1 - 5 %</td>
</tr>
<tr>
<td>124-38-9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Full text of R and H phrases: see Section 16.

Further Information
Regulation (EC) No 648/2004 (Detergents regulation)
30 % and more, aliphatic hydrocarbons

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
Never give anything by mouth to an unconscious person or a person with cramps. Guide people to safety.

After inhalation
Provide fresh air. In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible).

After contact with skin
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

After contact with eyes
Rinse immediately carefully and thoroughly with eye-bath or water.

After ingestion
Rinse mouth immediately and drink large quantities of water. Caution if victim vomits: Risk of aspiration!

4.2. Most important symptoms and effects, both acute and delayed
No information available.

4.3. Indication of any immediate medical attention and special treatment needed
No information available.
5.1. Extinguishing media

Suitable extinguishing media
Carbon dioxide (CO2). Foam. Extinguishing powder.

Extinguishing media which must not be used for safety reasons
High power water jet.

5.2. Special hazards arising from the substance or mixture

Combustible. Vapours may form explosive mixtures with air.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical resistant suit. Full protective suit.

Additional information
Use water spray/stream to protect personnel and to cool endangered containers. Use a water spray jet to knock down vapours/gases/mists. 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

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eye and clothing. Wear personal protection equipment.

6.2. Environmental precautions

Do not allow uncontrolled leakage of product into the environment. Explosion hazard.

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 assimilated material according to the section on waste disposal.

6.4. Reference to other sections

Refer to chapter 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
In case of open handling equipment with built-in suction must be used. Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion
Do not spray into flames or ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours may form explosive mixtures with air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from sources of ignition - No smoking.

Advice on storage compatibility
Do not store together with: Material, rich in oxygen, oxidizing.

Further information on storage conditions
Protect from frost.

7.3. Specific end use(s)

No information available.

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>64742-49-0</td>
<td>Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>124-38-9</td>
<td>Carbon dioxide</td>
<td>5000</td>
<td>9150</td>
<td>-</td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td>110-54-3</td>
<td>n-Hexane</td>
<td>20</td>
<td>72</td>
<td>-</td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
</tbody>
</table>

Additional advice on limit values

- a no restriction
- b End of exposure or shift
- c in long-term exposure: after several shifts
- d prior to next shift

U: Urea

8.2. Exposure controls

Occupational exposure controls

In case of open handling equipment with built-in suction must be used. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

Take off immediately all contaminated clothing. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

Respiratory protection

Wear respiratory protection when in the presence of vapour, dust, and aerosols. Suitable respiratory protective equipment: Combination filter device (DIN EN 141). Filter respirator with filter or ventilator type: AX

Hand protection

Suitable material: NBR (Nitrile rubber). penetration time (maximum wearing period): 480min Thickness of glove material: 0.45 mm

Eye protection

Suitable eye protection: Tightly sealed safety glasses.

Skin protection

Only wear fitting, comfortable and clean protective clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Aerosol

Colour: colourless

Odour: solvent like

Test method

pH-Value (at 20 °C): not applicable

Changes in the physical state

Melting point: No information available.

Boiling point: 80 ºC

Sublimation point: No information available.
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Softening point: No information available.
Flash point: -12 °C
Lower explosion limits: 1 vol. %
Upper explosion limits: 8 vol. %
Ignition temperature: No information available.
Vapour pressure: No information available.
Vapour pressure: No information available.
Density (at 20 °C): 0.71 g/cm³ DIN 51757
Water solubility: insoluble
Partition coefficient: No information available.
Viscosity / dynamic: No information available.
Viscosity / kinematic: No information available.
Flow time: No information available.
Vapour density: No information available.
Evaporation rate: No information available.
Solvent separation test: No information available.
Solvent content: No information available.
9.2. Other information
Solid content: No information available.
density: Data apply to technical substance.
pressure: - bar (20°C)

SECTION 10: Stability and reactivity

10.1. Reactivity
Reacts with: Oxidizing agents.

10.2. Chemical stability
The product is stable under normal conditions.

10.3. Possibility of hazardous reactions
Do not expose to temperatures above 50 °C. Heating causes rise in pressure with risk of bursting.

10.4. Conditions to avoid
Keep away from heat. Ignition hazard.

10.5. Incompatible materials
No information available.

10.6. Hazardous decomposition products
No information available.

Further information
Do not mix with other chemicals.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Toxicocinetics, metabolism and distribution
No information available.
Acute toxicity

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Exposure routes</th>
<th>Method</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>64742-49-0</td>
<td>Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic</td>
<td>oral</td>
<td>LD50</td>
<td>&gt; 5000</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>

Specific effects in experiment on an animal
No information available.

Irritation and corrosivity
Vapours may cause drowsiness and dizziness. After skin contact: irritant.

Sensitising effects
No information available.

Severe effects after repeated or prolonged exposure
No information available.

Carcinogenic/mutagenic/toxic effects for reproduction
No information available.

Additional information on tests
The classification was undertaken in accordance with the calculation method governed by the Preparations Directive (1999/45/EC).

SECTION 12: Ecological information

12.1. Toxicity
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Aquatic toxicity</th>
<th>Method</th>
<th>Dose</th>
<th>h</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>64742-49-0</td>
<td>Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic</td>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>1-10 mg/l</td>
<td>96</td>
<td>Pimephales promelas</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute algae toxicity</td>
<td>ErC50</td>
<td>10 - 100 mg/l</td>
<td>72</td>
<td>Pseudokirchneriella subcapitata</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute crustacea toxicity</td>
<td>EC50</td>
<td>1-10 mg/l</td>
<td>48</td>
<td>Daphnia magna</td>
<td></td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
There are no data available on the mixture itself.
AOX (mg/l): 0
Complexing agent: 0 mg/l

12.3. Bioaccumulative potential
There are no data available on the mixture itself.

12.4. Mobility in soil
No information available.

12.5. Results of PBT and vPvB assessment
No information available.

12.6. Other adverse effects
No information available.

Further information
Do not empty into drains or the aquatic environment. The classification was undertaken in accordance
13.1. Waste treatment methods

Advice on disposal
Do not empty into drains or the aquatic environment. Waste disposal according to official state regulations.

Waste disposal number of waste from residues/unused products
160504  WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing dangerous substances Classified as hazardous waste.

Waste disposal number of used product
160504  WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing dangerous substances Classified as hazardous waste.

Waste disposal number of contaminated packaging
150104  WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging

Contaminated packaging
Cleaned containers may be recycled. Handle contaminated packaging in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
Hazard label: 2.1
Classification code: 5F
Special Provisions: 190 327 344 625
Limited quantity: 1 L
Transport category: 2
Tunnel restriction code: D

Other applicable information (land transport)
Limited quantity: E0

Inland waterways transport (ADN)

14.1. UN number: UN1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
Hazard label: 2.1
Classification code: 5F
Special Provisions: 190 327 344 625
Limited quantity: 1 L

Other applicable information (inland waterways transport)
Limited quantity: E0

Marine transport (IMDG)
### 14.1. UN number:

UN1950

### 14.2. UN proper shipping name:

AEROSOLS

### 14.3. Transport hazard class(es):

2

### 14.4. Packing group:

- Hazard label: 2, see SP63
- Marine pollutant: Yes
- Special Provisions: 63, 190, 277, 327, 344, 959
- Limited quantity: See SP277
- EmS: F-D, S-U

### Other applicable information (marine transport)

Limited quantity: E0

### Air transport (ICAO)

#### UN/ID number:

UN1950

#### 14.2. UN proper shipping name:

AEROSOLS, flammable

#### 14.3. Transport hazard class(es):

2.1

#### Hazard label:

2.1

#### Special Provisions:

A145 A167 A803

#### Limited quantity Passenger:

30 kg G

| IATA-packing instructions - Passenger: | 203 |
| IATA-max. quantity - Passenger: | 75 kg |
| IATA-packing instructions - Cargo: | 203 |
| IATA-max. quantity - Cargo: | 150 kg |

### Other applicable information (air transport)

Limited quantity: E0

Passenger-LQ: Y203

### 14.5. Environmental hazards

Dangerous for the environment: yes

### SECTION 15: Regulatory information

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

#### EU regulatory information

1999/13/EC (VOC):

| VOC-CH: 0,339 kg/500 ml Dose (95,8 % w/w) |
| VOC 1999/13/EG: 95,8 % w/w |

Additional information

- Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)
- Data concerning the Directive 1999/13/EC on the limitation of emissions of volatile organic compounds (VOC-RL)

### National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

### SECTION 16: Other information

#### 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)
- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- IATA: International Air Transport Association
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GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL/DMEL: Derived No Effect Level / Derived Minimal Effect Level
WEL (UK): Workplace Exposure Limits
TWA (EC): Time-Weighted Average
ATE: Acute Toxicity Estimate
STEL (EC) Short Term Exposure Limit
LC50: Lethal Concentration
EC50: half maximal Effective Concentration
ErC50: means EC50 in terms of reduction of growth rate

Full text of R phrases referred to under Sections 2 and 3
11 Highly flammable.
12 Extremely flammable.
38 Irritating to skin.
48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
51 Toxic to aquatic organisms.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
53 May cause long-term adverse effects in the aquatic environment.
62 Possible risk of impaired fertility.
65 Harmful: may cause lung damage if swallowed.
67 Vapours may cause drowsiness and dizziness.

Full text of H statements referred to under Sections 2 and 3
H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H361f Suspected of damaging fertility.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic 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.)