# Safety Data Sheet

according to UK REACH Regulation

## 994 Hygienic Cleaner AC Systems 1 l AB



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

### 1.1. Product identifier

994 Hygienic Cleaner AC Systems 1 l AB

UFI: JTD1-90SH-D00U-672Q

### 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 GmbH & Co. KG
Street: Buergermeister-Seidl-Strasse 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

### 1.4. Emergency telephone number:

111 NHS (National Health Service)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**GB CLP Regulation**

Flam. Liq. 3; H226

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

**GB CLP Regulation**

**Signal word:** Warning

**Pictograms:**

**Hazard statements**

H226 Flammable liquid and vapour.

**Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe vapours.
P280 Wear eye protection/face protection.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

**Relevant ingredients**

| CAS No | Chemical name | | | Quantity |
|---|---|---|---|---|
| | EC No | Index No | REACH No | |
| | Classification (GB CLP Regulation) | | | |
| 64-17-5 | ethanol | | | 10 - < 20 % |
| | 200-578-6 | 603-002-00-5 | 01-2119457610-43 | |
| | Flam. Liq. 2, Eye Irrit. 2; H225 H319 | | | |

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

**Specific Conc. Limits, M-factors and ATE**

| CAS No | EC No | Chemical name | Quantity |
|---|---|---|---|
| | Specific Conc. Limits, M-factors and ATE | | |
| 64-17-5 | 200-578-6 | ethanol | 10 - < 20 % |
| | inhalation: LC50 = 95,6 mg/l (vapours); oral: LD50 = 6200 mg/kg Eye Irrit. 2; H319: >= 50 - 100 | | |

## 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. Call a POISON CENTER. Symptoms can occur only after several hours.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media**

Water fog. Foam. Carbon dioxide (CO2). Extinguishing powder.

**Unsuitable extinguishing media**

Full water jet

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

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.

### 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**

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

**General advice**

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.

**For non-emergency personnel**

First aider: Pay attention to self-protection!

**For emergency responders**

Fight fire with normal precautions from a reasonable distance.

### 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

**For containment**

Prevent spread over a wide area (e.g. by containment or oil barriers).

**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**Other information**

Absorb with liquid-binding material (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**

Observe instructions for use.
Dust must be exhausted directly at the point of origin. Vapours/aerosols must be exhausted directly at the point of origin. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.
When using do not eat, drink, smoke, sniff.
Wear personal protection equipment (refer to section 8).

**Advice on protection against fire and explosion**

Keep away from sources of ignition - No smoking.

**Advice on general occupational hygiene**

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

**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. Observe legal regulations and provisions.

**Hints on joint storage**

Do not store together with: Oxidizing agents. Pyrophoric or self-heating substances. Food and feedingstuffs.

**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)**

| CAS No | Substance | ppm | mg/m³ | fibres/ml | Category | Origin |
|---|---|---|---|---|---|---|
| 64-17-5 | Ethanol | 1000 | 1920 | | TWA (8 h) | WEL |

**Additional advice on limit values**

a no restriction
b End of exposure or end of shift
c at long-term exposure:
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.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Suitable eye protection: Tightly sealed safety glasses.
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: 480min
Thickness of the glove material 0,45 mm
EN ISO 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: P2
Observe the wear time limits as specified by the manufacturer.
Observe legal regulations and provisions.

**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: | colorless, clear |
| Odour: | characteristic |

| | | Test method |
|---|---|---|
| Melting point/freezing point: | not determined | |
| Boiling point or initial boiling point and boiling range: | 78 °C | |
| Flammability: | not applicable | |
| | not applicable | |
| Lower explosion limits: | 3,5 vol. % | |
| Upper explosion limits: | 15 vol. % | |
| Flash point: | 35 °C | ISO 3679 |
| Auto-ignition temperature: | 400 °C | |
| Decomposition temperature: | not determined | |
| pH-Value (at 20 °C): | 8,5 | DIN 19268 |
| Viscosity / kinematic: (at 40 °C) | | DIN EN ISO 3104 |
| Water solubility: | easily soluble | |
| Solubility in other solvents | | |
| not determined | | |
| Partition coefficient n-octanol/water: | not determined | |
| Vapour pressure: | not determined | |
| Density (at 20 °C): | 0,97 g/cm³ | DIN 51757 |
| Relative vapour density: | not determined | |

### 9.2. Other information

**Information with regard to physical hazard classes**

| | |
|---|---|
| Sustained combustibility: | No data available |
| Self-ignition temperature | |
| Solid: | not applicable |
| Gas: | not applicable |
| Oxidizing properties | |
| Not oxidising. | |

**Other safety characteristics**

| | | |
|---|---|---|
| Evaporation rate: | not determined | |
| Solid content: | not determined | |
| Sublimation point: | not applicable | |
| Softening point: | not applicable | |
| Pour point: | not determined | |
| Viscosity / dynamic: | | DIN 53019-1 |
| Flow time: (at 20 °C) | | DIN EN ISO 2431 |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Flammable

### 10.2. Chemical stability

The product is stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

### 10.4. Conditions to avoid

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Take precautionary measures against static discharges.

### 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 hazard classes as defined in GB CLP Regulation

**Toxicocinetics, metabolism and distribution**

There are no data available on the mixture itself.

**Acute toxicity**

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

**ATEmix calculated**

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

| CAS No | Chemical name | | | | | |
|---|---|---|---|---|---|---|
| | Exposure route | Dose | | Species | Source | Method |
| 64-17-5 | ethanol | | | | | |
| | oral | LD50 mg/kg | 6200 | Rat | IUCLID | |
| | inhalation (4 h) vapour | LC50 | 95,6 mg/l | Rat | RTECS | |

**Irritation and corrosivity**

Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

**Sensitising effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: 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**

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.

**Information on likely routes of exposure**

Ingestion, Inhalation, Skin contact, Eye contact.
Reference to other sections: 2.1, 4.2.

**Specific effects in experiment on an animal**

No information available.

### 11.2. Information on other hazards

**Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

**Other information**

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

## SECTION 12: Ecological information

### 12.1. Toxicity

Based on available data, the classification criteria are not met.
The product is not: Ecotoxic.

| CAS No | Chemical name | | | | | |
|---|---|---|---|---|---|---|
| | Aquatic toxicity | Dose | [h] \| [d] | Species | Source | Method |
| 64-17-5 | ethanol | | | | | |
| | Acute crustacea toxicity | EC50 9268 - 14221 mg/l | 48 h | Daphnia magna | IUCLID | |

### 12.2. Persistence and degradability

The product has not been tested.

### 12.3. Bioaccumulative potential

The product has not been tested.

**Partition coefficient n-octanol/water**

| CAS No | Chemical name | Log Pow |
|---|---|---|
| 64-17-5 | ethanol | -0,31 |

### 12.4. Mobility in soil

The product has not been tested.

### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.
The product has not been tested.

### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

### 12.7. Other adverse effects

No information available.

**Further information**

Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal recommendations**

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

**List of Wastes Code - residues/unused products**

070104 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals; other organic solvents, washing liquids and mother liquors; hazardous waste

**List of Wastes Code - used product**

070104 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals; other organic solvents, washing liquids and mother liquors; hazardous waste

**List of Wastes Code - 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**

Water (with cleaning agent). Completely emptied packages can be recycled.

## SECTION 14: Transport information

**Land transport (ADR/RID)**

| | |
|---|---|
| **14.1. UN number or ID number:** | UN 1170 |
| **14.2. UN proper shipping name:** | ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) |
| **14.3. Transport hazard class(es):** | 3 |
| **14.4. Packing group:** | III |
| Hazard label: | 3 |
| Classification code: | F1 |
| Special Provisions: | 144 601 |
| Limited quantity: | 5 L |
| Excepted quantity: | E1 |
| Transport category: | 3 |
| Hazard No: | 30 |
| Tunnel restriction code: | D/E |

**Inland waterways transport (ADN)**

| | |
|---|---|
| **14.1. UN number or ID number:** | UN 1170 |
| **14.2. UN proper shipping name:** | ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) |
| **14.3. Transport hazard class(es):** | 3 |
| **14.4. Packing group:** | III |
| Hazard label: | 3 |
| Classification code: | F1 |
| Special Provisions: | 144 601 |
| Limited quantity: | 5 L |
| Excepted quantity: | E1 |

**Marine transport (IMDG)**

| | |
|---|---|
| **14.1. UN number or ID number:** | UN 1170 |
| **14.2. UN proper shipping name:** | ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) |
| **14.3. Transport hazard class(es):** | 3 |
| **14.4. Packing group:** | III |
| Hazard label: | 3 |
| Marine pollutant: | no |
| Special Provisions: | 144, 223 |
| Limited quantity: | 5 L |
| Excepted quantity: | E1 |
| EmS: | F-E, S-D |

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

| | |
|---|---|
| **14.1. UN number or ID number:** | UN 1170 |
| **14.2. UN proper shipping name:** | ETHYL ALCOHOL SOLUTION |

| | | |
|---|---|---|
| **14.3. Transport hazard class(es):** | 3 | |
| **14.4. Packing group:** | III | |
| Hazard label: | 3 | |
| Special Provisions: | A3 A58 A180 | |
| Limited quantity Passenger: | 10 L | |
| Passenger LQ: | Y344 | |
| Excepted quantity: | E1 | |
| IATA-packing instructions - Passenger: | | 355 |
| IATA-max. quantity - Passenger: | | 60 L |
| IATA-packing instructions - Cargo: | | 366 |
| IATA-max. quantity - Cargo: | | 220 L |

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

Warning: Combustible liquid.

**14.7. Maritime transport in bulk according to IMO instruments**

not applicable

## SECTION 15: Regulatory information

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

**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

| | |
|---|---|
| Directive 2010/75/EU on industrial emissions: | No information available. |
| Directive 2004/42/EC on VOC in paints and varnishes: | 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 juveniles according to the 'juvenile work protection guideline' (94/33/EC). |
| Water hazard class (D): | 1 - slightly hazardous to water |

**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): 1,2,3,4,5,6,8,9,10,11,12,13,14,15,16.

**Abbreviations and acronyms**

Flam. Liq: Flammable liquids
Eye Irrit: Eye irritation
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
IMDG: International Maritime Code for Dangerous Goods
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 (division of the American Chemical Society)
DNEL/DMEL: Derived No Effect Level / Derived Minimal Effect Level
WEL: Workplace Exposure Limits
TWA (EC): Time-Weighted Average
ATE: Acute Toxicity Estimate
ATEL (EC): Short Term Exposure Limit
LC50: Lethal Concentration
EC50:half maximal Effective Concentration
ErC50: means EC50 in terms of reduction of growth rate

**Classification for mixtures and used evaluation method according to GB CLP Regulation**

| Classification | Classification procedure |
|---|---|
| Flam. Liq. 3; H226 | On basis of test data |

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

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H319 Causes serious eye irritation.

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