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

### 1.1. Product identifier

143 Cooling System Cleaner MP14300500AB

UFI: 4108-D0TX-2005-VCD6

### 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

### 2.2. Label elements

**GB CLP Regulation**

**Special labelling of certain mixtures**

EUH210 Safety data sheet available on request.

## 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) | | | |
| 68891-38-3 | Alcohols, C12-14, ethoxylated, sulfates, sodium salts | | | 1 - < 3 % |
| | 500-234-8 | | 01-2119488639-16 | |
| | Skin Irrit. 2, Eye Dam. 1, Aquatic Chronic 3; H315 H318 H412 | | | |

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 | | |
| 68891-38-3 | 500-234-8 | Alcohols, C12-14, ethoxylated, sulfates, sodium salts | 1 - < 3 % |
| | dermal: LD50 = > 2000 mg/kg; oral: LD50 = 4100 mg/kg Eye Dam. 1; H318: >= 10 - 100 Eye Irrit. 2; H319: >= 5 - < 10 | | |

**Labelling for contents according to Regulation (EC) No 648/2004**

5 % - < 15 % non-ionic surfactants, 5 % - < 15 % anionic surfactants.

## 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**

No special fire protection measures are necessary.

**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**

Protect from frost. Store in a cool dry place. Observe legal regulations and provisions.

### 7.3. Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

**DNEL/DMEL values**

| CAS No | Substance | | | |
|---|---|---|---|---|
| DNEL type | | Exposure route | Effect | Value |
| 68891-38-3 | Alcohols, C12-14, ethoxylated, sulfates, sodium salts | | | |
| Worker DNEL, long-term | | inhalation | systemic | 175 mg/m³ |
| Worker DNEL, long-term | | dermal | systemic | 2750 mg/kg bw/day |
| Consumer DNEL, long-term | | inhalation | systemic | 52 mg/m³ |
| Consumer DNEL, long-term | | dermal | systemic | 1650 mg/kg bw/day |
| Consumer DNEL, long-term | | oral | systemic | 15 mg/kg bw/day |

**PNEC values**

| CAS No | Substance | |
|---|---|---|
| Environmental compartment | | Value |
| 68891-38-3 | Alcohols, C12-14, ethoxylated, sulfates, sodium salts | |
| Freshwater | | 0,24 mg/l |
| Freshwater (intermittent releases) | | 0,071 mg/l |
| Marine water | | 0,024 mg/l |
| Freshwater sediment | | 0,917 mg/kg |
| Marine sediment | | 0,092 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | | 10000 mg/l |
| Soil | | 7,5 mg/kg |

**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 yellowish, clear |
| Odour: | characteristic |

| | | Test method |
|---|---|---|
| Melting point/freezing point: | not determined | |
| Boiling point or initial boiling point and boiling range: | 100 °C | |
| Flammability: | not determined<br>not applicable | |
| Lower explosion limits: | 3,6 vol. % | |
| Upper explosion limits: | 7,2 vol. % | |
| Flash point: | 100 °C | ISO 3679 |
| Auto-ignition temperature: | not determined | |
| Decomposition temperature: | not determined | |
| pH-Value (at 20 °C): | 10,09 | DIN 19268 |
| Viscosity / kinematic: (at 40 °C) | | DIN EN ISO 3104 |
| Water solubility: | easily soluble | |
| Solubility in other solvents<br>not determined | | |
| Partition coefficient n-octanol/water: | not determined | |
| Vapour pressure: | not determined | |
| Density (at 20 °C): | 1,0361 g/cm³ | DIN 51757 |
| Relative vapour density: | not determined | |

### 9.2. Other information

**Information with regard to physical hazard classes**

| | |
|---|---|
| Sustained combustibility: | No sustained combustibility |
| 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 determined |
| 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

No information available.

### 10.2. Chemical stability

The product is stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Do not mix with acids.

### 10.4. Conditions to avoid

Protect from frost.

### 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 |
| 68891-38-3 | Alcohols, C12-14, ethoxylated, sulfates, sodium salts | | | | |
| | oral | LD50 4100 mg/kg | Rat | Study report (1986) | OECD Guideline 401 |
| | dermal | LD50 > 2000 mg/kg | Rat | Study report (1989) | OECD Guideline 402 |

**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**

No information available.

**Further information**

The substance is classified as not 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 |
| 68891-38-3 | Alcohols, C12-14, ethoxylated, sulfates, sodium salts | | | | | | |
| | Acute fish toxicity | LC50 | 7,1 mg/l | 96 h | Danio rerio | REACh Registration Dossier | OECD Guideline 203 |
| | Acute algae toxicity | ErC50 mg/l | 27,7 | 72 h | Desmodesmus subspicatus | REACh Registration Dossier | other: EU-Guideline 92/69 EWG |
| | Acute crustacea toxicity | EC50 | 7,4 mg/l | 48 h | Daphnia magna | REACh Registration Dossier | OECD Guideline 202 |
| | Fish toxicity | NOEC mg/l | 0,18 | 28 d | Pimephales promelas | REACh Registration Dossier | OECD Guideline 210 |
| | Crustacea toxicity | NOEC mg/l | 0,27 | 21 d | Daphnia magna | REACh Registration Dossier | OECD Guideline 211 |

### 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 |
|---|---|---|
| 68891-38-3 | Alcohols, C12-14, ethoxylated, sulfates, sodium salts | 0,3 |

**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**

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**

**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**

070701 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fine chemicals and chemical products not otherwise specified; aqueous washing liquids and mother liquors; hazardous waste

**List of Wastes Code - used product**

070701 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fine chemicals and chemical products not otherwise specified; aqueous washing liquids and mother liquors; hazardous waste

**List of Wastes Code - contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

**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:** No dangerous good in sense of this transport regulation.
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**Inland waterways transport (ADN)**

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**Marine transport (IMDG)**

| | |
|---|---|
| **14.1. UN number or ID number:** | No dangerous good in sense of this transport regulation. |
| **14.2. UN proper shipping name:** | No dangerous good in sense of this transport regulation. |
| **14.3. Transport hazard class(es):** | No dangerous good in sense of this transport regulation. |
| **14.4. Packing group:** | No dangerous good in sense of this transport regulation. |
| Marine pollutant: | no |

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

| | |
|---|---|
| **14.1. UN number or ID number:** | No dangerous good in sense of this transport regulation. |
| **14.2. UN proper shipping name:** | No dangerous good in sense of this transport regulation. |
| **14.3. Transport hazard class(es):** | No dangerous good in sense of this transport regulation. |
| **14.4. Packing group:** | No dangerous good in sense of this transport regulation. |

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

## 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 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**

Water hazard class (D): 1 - slightly hazardous to water

## SECTION 16: Other information

**Changes**

This data sheet contains changes from the previous version in section(s): 1,2,4,5,6,7,8,9,10,11,12,13,14,15,16.

**Abbreviations and acronyms**

Skin Irrit: Skin irritation
Eye Dam: Eye damage
Aquatic Chronic: Chronic aquatic hazard
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

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

| | |
|---|---|
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH210 | Safety data sheet available on request. |

**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.)*