



according to Regulation (EC) No 1907/2006

143 Radiator Cleaner MP14300500AB

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Product code: 11AMP14300500AB

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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		

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****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard categories:

Serious eye damage/eye irritation: Eye Irrit. 2

Hazard Statements:

Causes serious eye irritation.

2.2. Label elements

Signal word:	Warning
Pictograms:	GHS07

**Hazard statements**

H319 Causes serious eye irritation.

Precautionary statements

P280 Wear Eye/face protection.

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**



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Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
230-785-7	Potassium pyrophosphate	5 - < 10 %
7320-34-5	Xi - Irritant R36	
	Eye Irrit. 2; H319	
204-812-8	sodium etasulfate	1 - < 3 %
126-92-1	Xi - Irritant R38-41	
	Skin Irrit. 2, Eye Dam. 1; H315 H318	
01-2119971586-23		

Full text of R, H and EUH phrases: see section 16.

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

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

SECTION 4: First aid measures**4.1. Description of first aid measures****After inhalation**

Provide fresh air.

After contact with skin

Wash with plenty of water.

After contact with eyes

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

After ingestion

Rinse mouth immediately and drink plenty of water.

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.

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

The product itself does not burn.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures



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6.1. Personal precautions, protective equipment and emergency procedures

Wear breathing apparatus if exposed to vapours/dusts/aerosols. Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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.

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**

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means. Dust must be exhausted directly at the point of origin. When using do not eat, drink, smoke, sniff.

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.

Advice on storage compatibility

No special measures are necessary.

Further information on storage conditions

Protect from frost.

7.3. Specific end use(s)

Reiniger

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****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

STEL (EC) : Short Term Exposure Limit

TWA (EC): time-weighted average

U: Urea

B: Blood

8.2. Exposure controls**Protective and hygiene measures**

Wear suitable protective clothing.



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Eye/face protection

Wear eye/face protection.

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.
 Suitable material: NBR (Nitrile rubber) Breakthrough time (maximum wearing time) 480min
 Thickness of the glove material 0,45 mm
 DIN EN 374

Skin protection

Only wear fitting, comfortable and clean protective clothing.

Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Colour:	colourless
Odour:	characteristic

	Test method
pH-Value (at 20 °C):	10,25 DIN 19268

Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	100 °C
Sublimation point:	No information available.
Softening point:	No information available.
Flash point:	No information available. ISO 3679

Flammability

Solid:	not applicable
Gas:	not applicable
Lower explosion limits:	No information available.
Upper explosion limits:	No information available.
Ignition temperature:	No information available.

Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable
Decomposition temperature:	not determined

Oxidizing properties

Not oxidizing.

Vapour pressure:	not determined
Density (at 20 °C):	1,052 g/cm ³ DIN 51757
Bulk density:	No information available.
Water solubility:	easily soluble

Solubility in other solvents

not determined

Partition coefficient:	not determined
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Viscosity / dynamic:	No information available.	DIN 53019-1
Viscosity / kinematic: (at 40 °C)		DIN EN ISO 3104
Flow time: (at 20 °C)	No information available.	DIN EN ISO 2431
Vapour density:	not determined	
Evaporation rate:	not determined	
Solvent separation test:	No information available.	
Solvent content:	No information available.	

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Do not mix with acids.

10.4. Conditions to avoid

No special precautionary measures are necessary.

10.5. Incompatible materials

Reacts with : Oxidizing agents.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

Further information

Do not mix with other chemicals.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Toxicokinetics, metabolism and distribution**

No information available.

Acute toxicity

Based on available data, the classification criteria are not met.
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.



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CAS No	Chemical name				
	Exposure route	Method	Dose	Species	Source
7320-34-5	Potassium pyrophosphate				
	oral	LD50 mg/kg	>5000	Rat	
	dermal	LD50 mg/kg	>2000	Rabbit	
	inhalative (4 h) aerosol	LC50	>5 mg/l	Rat	
126-92-1	sodium etasulfate				
	oral	LD50	2840 mg/kg	Rat	
	dermal	LD50 mg/kg	>2000	Rabbit	

Irritation and corrosivity

Causes serious eye irritation.

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

Sensitising effects

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

STOT-single exposure

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

Severe effects after repeated or prolonged exposure

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.

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

This mixture is classified as not hazardous according to 1999/45/EC.

SECTION 12: Ecological information**12.1. Toxicity**

According to the criteria of the European classification and labelling system, the substance/the product has not to be labelled as "dangerous for the environment".



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CAS No	Chemical name	Method	Dose	[h] [d]	Species	Source
7320-34-5	Potassium pyrophosphate					
	Acute fish toxicity	LC50	>100 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50	>100 mg/l	72 h	Selenastrum capricornutum	
	Acute crustacea toxicity	EC50	>100 mg/l	48 h	Daphnia magna (Big water flea)	
126-92-1	sodium etasulfate					
	Acute fish toxicity	LC50	>100 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50	>511 mg/l	72 h	Desmodesmus subspicatus.	
	Acute crustacea toxicity	EC50	483 mg/l	48 h	Daphnia magna (Big water flea)	

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

No special environmental measures are necessary.

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.

Waste disposal number of waste from residues/unused products

070401 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of organic plant protection products (except 02 01 08 and 02 01 09), wood preserving agents (except 03 02) and other biocides; aqueous washing liquids and mother liquors
Classified as hazardous waste.

Waste disposal number of used product

070401 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of organic plant protection products (except 02 01 08 and 02 01 09), wood preserving agents (except 03 02) and other biocides; aqueous washing liquids and mother liquors
Classified as hazardous waste.

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.



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SECTION 14: Transport information**Land transport (ADR/RID)**

- 14.1. UN 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:** 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:** 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.

Air transport (ICAO)

- 14.1. UN 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 information available.

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**

1999/13/EC (VOC): No information available.

Additional information

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

National regulatory information

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

Additional information94/69/EC (21st ATP). The benzene content of the product is less than 0.1%. It applies the annotation P.
Classification and labeling as carcinogenic is not necessary.**SECTION 16: Other information****Changes**



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This data sheet contains changes from the previous version in section(s): 1,2.

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 R phrases (number and full text)

- | | |
|----|---------------------------------|
| 36 | Irritating to eyes. |
| 38 | Irritating to skin. |
| 41 | Risk of serious damage to eyes. |

Relevant H and EUH statements (number and full text)

- | | |
|------|--------------------------------|
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| 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 hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)