

**Safety data sheet
according to UK REACH**

Printing date 11.09.2025



Version 10.3

Revision: 20.03.2024

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

- **1.1 Product identifier**
- **Trade name:** RA-4 STAB-WL Ultra Performance
- **Article number:** 12708
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
To this day we do not have any information about the identified use at the moment. These data are available we will add these to the safety data sheet.
- **Application of the substance / the mixture**
Photographic activities
Photo chemicals
Photographic bath
Processing colour photo paper
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Calbe Chemie GmbH
Stadtfeld 31
D-39240 Calbe
Phone: +49 (0)39291 425-0
Fax: +49 (0)39291 425-25
e-mail: info@calbe-chemie.de
www.calbe-chemie.de
- **Informing department:** E-Mail: info@calbe-chemie.de
- **1.4 Emergency telephone number:**
Phone: +49 (0) 700-24112112 (CAL)
Phone: +1 872 5888271(CAL)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
 GHS05 corrosion
Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms**

GHS05
- **Signal word** Danger

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Trade name: RA-4 STAB-WL Ultra Performance

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• **Hazard-determining components of labelling:**

1-Hydroxyethane-1,1,-diphosphonic acid
ammonia solution 25 %

• **Hazard statements**

H314 Causes severe skin burns and eye damage.

• **Precautionary statements**

P273 Avoid release to the environment.

P280 Wear protective gloves / eye 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.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

• **2.3 Other hazards**

No special hazards known if the regulations/instructions for storage and handling are observed.

Where applicable, this section provides information on other hazards that do not result in classification but may contribute to the overall hazards of the substance or mixture.

The product does not contain any substance above legal limits that fulfils the criteria for PBT (persistent, bioaccumulative and toxic) or vPvB (very persistent and very bioaccumulative). The product does not contain any substance above the legal limits that has been included in the list drawn up in accordance with Article 59(1) of Regulation (EC) No 1907/2006 due to endocrine disrupting properties or that has endocrine disrupting or endocrine disrupting properties in accordance with Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

• **Results of PBT and vPvB assessment**

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

• **3.2 Mixtures**

• **Description:** Mixture of the substances listed below with harmless additions.

• **Dangerous components:**

CAS: 2809-21-4 EINECS: 220-552-8 Reg.nr.: 01-2119510391-53-xxxx	1-Hydroxyethane-1,1,-diphosphonic acid Met. Corr.1, H290; Skin Corr. 1B, H314	5 - 10%
CAS: 1336-21-6 EINECS: 215-647-6 Index number: 007-001-01-2	ammonia solution 25 % Skin Corr. 1B, H314; Eye Dam. 1, H318 Aquatic Acute 1, H400	≥ 3 - < 5%
CAS: 2634-33-5 EINECS: 220-120-9 Index number: 613-088-00-6	1,2-benzisothiazol-3(2H)-one Acute Tox. 2, H330 Eye Dam. 1, H318 Aquatic Acute 1, H400 Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317	≥ 0.036 - < 0.1%

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· **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information**

Instantly remove any clothing soiled by the product.
Personal protection for the First Aider.

· **After inhalation** In case of unconsciousness bring patient into stable side position for transport.

· **After skin contact**

If skin irritation continues, consult a doctor.
Instantly wash with water and soap and rinse thoroughly.

· **After eye contact**

Rinse opened eye for several minutes under running water (> 15 min). Then consult doctor.
Rinse opened eye for several minutes under running water (at least 15 minutes).
Remove contact lenses, if present and easy to do.
Protect uninjured eye.
Call a doctor immediately.

· **After swallowing**

Rinse out mouth and then drink plenty of water.
Seek immediate medical advice.
Drink copious amounts of water and provide fresh air. Instantly call for doctor.

· **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed**

Basic relief, decontamination, symptomatic treatment.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents**

CO₂, extinguishing powder or water jet. Fight larger fires with water spray jet or alcohol-resistant foam.
Use fire fighting measures that suit the environment.

· **For safety reasons unsuitable extinguishing agents** Water with a full water jet.

· **5.2 Special hazards arising from the substance or mixture**

Can be released in case of fire
Nitrogen oxides (NO_x)
Hydrogen cyanide (HCN)

· **5.3 Advice for firefighters**

· **Protective equipment:**

If toxic gases occur:
Do not inhale explosion gases or combustion gases.

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- **Additional information** The product is not flammable

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or water bodies.
Inform respective authorities in case product reaches water or sewage system.
Do not allow to enter drainage system, surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special precautions necessary if used correctly.
- **Information about protection against explosions and fires:** The product is not flammable
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:**
Keep away from foodstuffs, beverages and food.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in a cool place.
- **Recommended storage temperature:** 5-25°C
- **Storage class**
(German Technical Rule for Hazardous Substance – TRGS 510)
8 B
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical systems:** No further data; see section 7.
- **Components with limit values that require monitoring at the workplace:**
No national limit value is available.

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The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· DNELs

2634-33-5 1,2-benzisothiazol-3(2H)-one

Inhalative	Systematic effects - long term	0.05 mg/m ³ (ATE)
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· **Additional information:** The lists that were valid during the compilation were used as basis.

· 8.2 Exposure controls

· Personal protective equipment

· General protective and hygienic measures

Wash contaminated clothing before reuse.

The usual precautionary measures should be adhered to general rules for handling chemicals.

Keep away from foodstuffs, beverages and food.

Take off immediately all contaminated clothing.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Do not eat, drink or smoke while working.

· **Breathing equipment:** Not necessary if room is well-ventilated.

· Protection of hands:

Protective gloves.

The protective gloves to be used must comply with the specifications of the (EU) 2016/425 and the resultant standard EN 374.

This recommendation applies only to the product stated in the Safety Data Sheet and supplied by us as well as to the purpose specified by us.

Only use chemical-protective gloves with CE-labelling of category III.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

Thickness	Breakthrough time	
	(mm)	(min)
Nitril rubber	0,38	> 480
Neoprene	0,65	> 240
Butyl rubber	0,36	> 480

Avoid natural rubber gloves.

· As protection from splashes gloves made of the following materials are suitable:

Synthetic gloves

Value for the permeation: Level:

Value for permeation: Level \geq 3 (60 min)

\geq 3 (60 min)

· **Eye protection:** Tightly sealed safety glasses.

· Body protection:

Light weight protective clothing

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Protective work clothing.

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Fluid
Colour:	Light green
Odour:	Not characteristic
Odour threshold:	Not determined.

· pH-value at 20 °C: 5

· Change in condition

Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	> 100 °C

· Flash point: Not applicable

· Inflammability (solid, gaseous) Not applicable.

· Decomposition temperature: Not determined.

· Self-inflammability: Product is not selfigniting.

· Explosive properties: Product is not explosive.

· Critical values for explosion:

Lower:	Not determined.
Upper:	Not determined.

· Oxidising properties: None

· Vapour pressure: Not determined.

· Density at 20 °C 1.026 g/cm³

· Relative density Not determined.

· Vapour density Not determined.

· Evaporation rate Not determined.

· Solubility in / Miscibility with

Water: miscible

· Partition coefficient: n-octanol/water: Not determined.

· Viscosity:

dynamic:	Not determined
kinematic:	Not determined

· Solvent content:

Water: 84.5 %

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· 9.2 Other information

No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values that are relevant for classification:

2809-21-4 1-Hydroxyethane-1,1,-diphosphonic acid

Oral	LD50	2,400 mg/kg (rat)
Dermal	LD50	3,500 mg/kg (rat)

2634-33-5 1,2-benzisothiazol-3(2H)-one

Oral	LD50	450 mg/kg (ATE)
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- **Specific symptoms in biological assay:** Not determined
- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
This statement was deduced from the properties of the single components.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
To date, there are no known symptoms.
- **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.
- **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.

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SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** Not determined
- **Behaviour in environmental systems:** Not determined
- **12.3 Bioaccumulative potential** Not determined
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxic effects:** No further relevant information available.
- **Behaviour in sewage processing plants:** Not determined
- **Additional ecological information:**
- **General notes:**
This statement was deduced from the properties of the single components.
Water hazard class 2 (German Regulation) (Self-assessment): Water-endangering.
Do not allow product to reach ground water, water bodies or sewage system.
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
At present there are no ecotoxicological assessments.
The product does not contain organically bounded halogens (AOX-free).
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Must be specially treated under adherence to official regulations.
Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.
- **Uncleaned packagings:**
- **Recommendation:**
Non contaminated packagings can be used for recycling.
Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

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SECTION 14: Transport information

· 14.1 UN-Number	UN3265
· ADR/RID, IMDG, IATA	
· 14.2 UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
· ADR/RID, IMDG, IATA	(1-Hydroxyethane-1,1,-diphosphonic acid, AMMONIA SOLUTION)
· 14.3 Transport hazard class(es)	
· ADR/RID, IMDG, IATA	
	
· Class	8 Corrosive substances.
· Label	8
· 14.4 Packing group	II
· ADR/RID, IMDG, IATA	
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Warning: Corrosive substances.
· Kemler Number:	80
· EMS Number:	F-A,S-B
· Segregation groups	(SGG1) Acids
· Stowage Category	B
· Stowage Code	SW2 Clear of living quarters.
· Segregation Code	SG36 Stow "separated from" SGG18-alkalis. SG49 Stow "separated from" SGG6-cyanides
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR/RID	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	1L

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· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (1-HYDROXYETHANE-1,1,-DIPHOSPHONIC ACID, AMMONIA SOLUTION), 8, II

SECTION 15: Regulatory information

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

· **Regulated explosives precursors**

None of the ingredients is listed.

· **Regulated poisons**

None of the ingredients is listed.

· **Reportable explosives precursors**

None of the ingredients is listed.

· **Reportable poisons**

1336-21-6	ammonia solution 25 %	10%
1310-73-2	sodium hydroxide	12% of total caustic alkalinity

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

· **Hazard pictograms**



GHS05

· **Signal word** Danger

· **Hazard-determining components of labelling:**

1-Hydroxyethane-1,1,-diphosphonic acid
ammonia solution 25 %

· **Hazard statements**

H314 Causes severe skin burns and eye damage.

· **Precautionary statements**

P273 Avoid release to the environment.
P280 Wear protective gloves / eye 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.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

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P501

Dispose of contents/container in accordance with local/regional/national/
international regulations.

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- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **National regulations**
- **Water hazard class:** Water hazard class 2 (Self-assessment): water-endangering.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

none
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H400 Very toxic to aquatic life.

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord relatif au transport international 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 Harmonised 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: Derived No-Effect Level (UK REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
Met. Corr. 1: Corrosive to metals – Category 1
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 2: Acute toxicity – Category 2
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

· Sources

Internal physical tests, MSDS of the ingredients,
Information system on hazardous substances of the German Social Accident Insurance
(GESTIS-database on hazardous substances), <http://www.dguv.de/ifa/en/gestis/stoffdb/index.jsp>

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applicable EEC directives:

- 1907/2006
- 1272/2008

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· * **Data compared to the previous version altered.**

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