



Safety data sheet
according to UK REACH

Printing date 22.12.2024

Version number 12.1 (replaces version 12.0)

Revision: 22.12.2024

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

· **1.1 Product identifier**

· Trade name: AR 300-26

· Article number: AR 300-26

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

· **Application of the substance / the mixture**

Intermediate product for the electronics industry. For industrial and commercial use only.

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Allresist GmbH
Am Biotop 14
15344 Strausberg
GERMANY

E-Mail: info@allresist.de

Tel.: +49 3341 35 93 0

· **Further information obtainable from: Sales**

· **1.4 Emergency telephone number:**

Poison center of the Charité Berlin:

+4930 30686700

E-Mail: giftnotruf@charite.de

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

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



GHS08 health hazard

Repr. 1B H360FD May damage fertility. May damage the unborn child.



GHS05 corrosion

Met. Corr.1 H290 May be corrosive to metals.

Skin Corr. 1A 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.

(Contd. on page 2)

Safety data sheet according to UK REACH

Printing date 22.12.2024

Version number 12.1 (replaces version 12.0)

Revision: 22.12.2024

Trade name: AR 300-26

(Contd. of page 1)

· Hazard pictograms



GHS05 GHS08

· Signal word Danger

· Hazard-determining components of labelling:

Disodium tetraborate, decahydrate
sodium hydroxide

· Hazard statements

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H360FD May damage fertility. May damage the unborn child.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read carefully and follow all instructions.
P260 Do not breathe dusts or mists.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P321 Specific treatment (see on this label).
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Additional information:

Restricted to professional users.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· **Description:** Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 1303-96-4 EINECS: 215-540-4	Disodium tetraborate, decahydrate ⚠ Repr. 1B, H360FD; ⚠ Eye Irrit. 2, H319	≥2.5-<10%
CAS: 1310-73-2 EINECS: 215-185-5	sodium hydroxide ⚠ Met. Corr.1, H290; Skin Corr. 1A, H314 Specific concentration limits: Skin Corr. 1A; H314: C ≥ 5 % Skin Corr. 1B; H314: 2 % ≤ C < 5 % Skin Irrit. 2; H315: 0.5 % ≤ C < 2 % Eye Irrit. 2; H319: 0.5 % ≤ C < 2 %	≥2-≤2.5%

· SVHC

1303-96-4	Disodium tetraborate, decahydrate
-----------	-----------------------------------

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

GB

(Contd. on page 3)

Safety data sheet according to UK REACH

Printing date 22.12.2024

Version number 12.1 (replaces version 12.0)

Revision: 22.12.2024

Trade name: AR 300-26

(Contd. of page 2)

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
If skin irritation continues, consult a doctor.
Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.
- **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**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **5.3 Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ 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 contaminated material as waste according to section 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 disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.

(Contd. on page 4)

Safety data sheet according to UK REACH

Printing date 22.12.2024

Version number 12.1 (replaces version 12.0)

Revision: 22.12.2024

Trade name: AR 300-26

(Contd. of page 3)

- **Further information about storage conditions:** Keep container tightly sealed.
- **Recommended storage temperature:** 10-22°C
- **Storage class (TRGS):** 6.1 D
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· **Ingredients with limit values that require monitoring at the workplace:**

1303-96-4 Disodium tetraborate, decahydrate

WEL Long-term value: 5 mg/m³

· **DNELs**

1303-96-4 Disodium tetraborate, decahydrate

Oral	DNEL Long-term - oral, systemic effects	0.79 mg/kg_bw/day (general public)
	DNEL Acute - oral, systemic effects	0.79 mg/kg_bw/day (general public)
Dermal	DNEL Long-term – dermal, systemic effects	316.4 mg/kg_bw/d (Worker)
		159.5 mg/kg_bw/d (general public)
Inhalative	DNEL Long-term – inhalation, systemic effects	6.7 mg/m ³ /d (Worker)
		3.4 mg/m ³ /d (general public)

1310-73-2 sodium hydroxide

Inhalative	DNEL long-term - inhalation local effects	1 mg/m ³ (Worker)
		1 mg/m ³ (general public)
	DNEL Acute - inhalation, local effects	2 mg/m ³ (Worker)
		2 mg/m ³ (general public)

· **PNECs**

1303-96-4 Disodium tetraborate, decahydrate

PNEC short term, fresh water	2.9 mg/l (Aquatic organisms)
PNEC short term, sea water	2.9 mg/l (Aquatic organisms)
PNEC short term, sewage plant	10 mg/l (Aquatic organisms)
PNEC short term soil	5.7 mg/kg (Aquatic organisms)

1310-73-2 sodium hydroxide

PNEC short term, fresh water	6.4 mg/l (Aquatic organisms)
PNEC short term, sea water	0.64 mg/l (Aquatic organisms)
PNEC short term, sewage plant	51 mg/l (Aquatic organisms)
PNEC short term fresh water sediment	23 mg/kg (Aquatic organisms)
PNEC short term soil	0.853 mg/kg (terrestrial organisms)
PNEC short term sea water sediment	2.3 mg/kg (Aquatic organisms)
PNEC short term, intermittent releases	3.1 mg/l (Aquatic organisms)

- **Additional information:** The lists valid during the making were used as basis.

· 8.2 Exposure controls

- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing
 - Wash hands before breaks and at the end of work.
 - Store protective clothing separately.

(Contd. on page 5)

Safety data sheet according to UK REACH

Printing date 22.12.2024

Version number 12.1 (replaces version 12.0)

Revision: 22.12.2024

Trade name: AR 300-26

(Contd. of page 4)

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Hand protection**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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



Protective gloves

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection**



Tightly sealed goggles

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Physical state**

Fluid

· **Colour:**

Colourless

· **Odour:**

Odourless

· **Odour threshold:**

Not determined.

· **Melting point/freezing point:**

~0 °C

· **Boiling point or initial boiling point and boiling range**

~100 °C

· **Flammability**

Not applicable.

· **Lower and upper explosion limit**

· **Lower:**

1 Vol %

· **Upper:**

7.5 Vol %

· **Flash point:**

Not applicable.

· **Decomposition temperature:**

Not determined.

· **pH at 20 °C**

13.6

· **Viscosity:**

· **Kinematic viscosity**

Not determined.

· **Viscosity at 100°C:**

· **Dynamic:**

Not determined.

· **Solubility**

· **water at 20 °C:**

1.8 g/l

(Contd. on page 6)

Safety data sheet according to UK REACH

Printing date 22.12.2024

Version number 12.1 (replaces version 12.0)

Revision: 22.12.2024

Trade name: AR 300-26

(Contd. of page 5)

· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure:	Not determined.
· Density and/or relative density	
· Density at 20 °C:	1.054 g/cm ³
· Relative density	Not determined.
· Density (@15°C)	Not determined.
· Vapour density	Not determined.
· 9.2 Other information	
· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Solvent content:	
· Water:	92.0 %
· VOC (EC)	0.00 %
· Solids content:	0.0 %
· Change in condition	
· Evaporation rate	Not determined.
· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	May be corrosive to metals.
· Desensitised explosives	Void

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.

GB

(Contd. on page 7)

Safety data sheet according to UK REACH

Printing date 22.12.2024

Version number 12.1 (replaces version 12.0)

Revision: 22.12.2024

Trade name: AR 300-26

(Contd. of page 6)

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

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

Oral	Acute Toxicity Estimate of ingredient (ATE) oral	>5,000 mg/kg (Worker)
Inhalative	Acute toxicity Estimate inhalative (4h)	>20 mg/l (Worker)
	Acute toxicity estimates	>2,000 mg/kg (Worker)

LD/LC50 values relevant for classification:

1310-73-2 sodium hydroxide

Oral	LD50	2,000 mg/kg (rat)
------	------	-------------------

Primary irritant effect:

• **Skin corrosion/irritation** Causes severe skin burns and eye damage.

• **Serious eye damage/irritation** Causes serious eye damage.

• **Reproductive toxicity** May damage fertility. May damage the unborn child.

11.2 Information on other hazards

Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

1310-73-2 sodium hydroxide

LC50 (96h) mg/ltr.	196 mg/ltr (Fish)
EC50 (48h)	40.4 mg/l (Freshwater Invertebrates)

• **12.2 Persistence and degradability** No further relevant information available.

• **12.3 Bioaccumulative potential** No further relevant information available.

• **12.4 Mobility in soil** No further relevant information available.

12.5 Results of PBT and vPvB assessment

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

• **12.7 Other adverse effects** No further relevant information available.

Additional ecological information:

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

(Contd. on page 8)

Safety data sheet according to UK REACH

Printing date 22.12.2024

Version number 12.1 (replaces version 12.0)


Revision: 22.12.2024

Trade name: AR 300-26

(Contd. of page 7)

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

<ul style="list-style-type: none"> · 14.1 UN number or ID number · ADR, IMDG, IATA 	<p style="text-align: right;">UN1824</p>
<ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · IMDG, IATA 	<p style="text-align: right;">1824 SODIUM HYDROXIDE SOLUTION SODIUM HYDROXIDE SOLUTION</p>
<ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, IMDG, IATA 	<div style="text-align: center;">  </div> <p style="text-align: right;">8 Corrosive substances.</p> <p style="text-align: right;">8</p>
<ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA 	<p style="text-align: right;">II</p>
<ul style="list-style-type: none"> · 14.5 Environmental hazards: 	<p style="text-align: right;">Not applicable.</p>
<ul style="list-style-type: none"> · 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Segregation groups · Stowage Category · Segregation Code 	<p style="text-align: right;">Warning: Corrosive substances.</p> <p style="text-align: right;">80</p> <p style="text-align: right;">F-A,S-B</p> <p style="text-align: right;">(SGG18) Alkalis</p> <p style="text-align: right;">A</p> <p style="text-align: right;">SG35 Stow "separated from" SGG1-acids</p>
<ul style="list-style-type: none"> · 14.7 Maritime transport in bulk according to IMO instruments 	<p style="text-align: right;">Not applicable.</p>
<ul style="list-style-type: none"> · Transport/Additional information: 	
<ul style="list-style-type: none"> · ADR · Limited quantities (LQ) · Excepted quantities (EQ) 	<p style="text-align: right;">1L</p> <p style="text-align: right;">Code: E2</p> <p style="text-align: right;">Maximum net quantity per inner packaging: 30 ml</p> <p style="text-align: right;">Maximum net quantity per outer packaging: 500 ml</p>
<ul style="list-style-type: none"> · Transport category · Tunnel restriction code 	<p style="text-align: right;">2</p> <p style="text-align: right;">E</p>
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	<p style="text-align: right;">1L</p> <p style="text-align: right;">Code: E2</p> <p style="text-align: right;">Maximum net quantity per inner packaging: 30 ml</p> <p style="text-align: right;">Maximum net quantity per outer packaging: 500 ml</p>
<ul style="list-style-type: none"> · UN "Model Regulation": 	<p style="text-align: right;">UN 1824 SODIUM HYDROXIDE SOLUTION, 8, II</p>

GB

(Contd. on page 9)

Safety data sheet according to UK REACH

Printing date 22.12.2024

Version number 12.1 (replaces version 12.0)

Revision: 22.12.2024

Trade name: AR 300-26

(Contd. of page 8)

SECTION 15: Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture: (Substances not listed)

None of the ingredients is listed.

· 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

None of the ingredients is listed.

· Directive 2012/18/EU

· Named dangerous substances - ANNEX I None of the ingredients is listed.

· National regulations:

· Substances of very high concern (SVHC) according to UK REACH

1303-96-4 | Disodium tetraborate, decahydrate

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

· Disclaimer

This safety data sheet contains only safety relevant information. The information is based on the state of our knowledge at the time of revision, however, it does not constitute a guarantee of product properties, product information or product specifications and does not establish a contractual legal relationship. This document is only valid in its unchanged form. In the event of changes by third parties, the exhibitor accepts no responsibility for form and content or for any damages or claims arising from such changes. The information is not transferable to other products. If the product named in this safety data sheet is mixed, blended or processed with other materials or is subjected to processing, the information in this safety data sheet cannot be transferred to the new material produced in this way, unless expressly stated otherwise. The data sheet does not release the user from the obligation to ensure that he acts in accordance with all regulations in connection with his activity.

· Relevant phrases

H290 May be corrosive to metals.
 H314 Causes severe skin burns and eye damage.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H360FD May damage fertility. May damage the unborn child.

· Department issuing SDS: Quality Management department

· Contact: MSDS authorized Person

· Abbreviations and acronyms:

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)
 VOC: Volatile Organic Compounds (USA, EU)

(Contd. on page 10)

Safety data sheet
according to UK REACH

Printing date 22.12.2024

Version number 12.1 (replaces version 12.0)

Revision: 22.12.2024

Trade name: AR 300-26

(Contd. of page 9)

DNEL: Derived No-Effect Level (UK REACH)
PNEC: Predicted No-Effect Concentration (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
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Repr. 1B: Reproductive toxicity – Category 1B
*** Data compared to the previous version altered.**

GB