



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU)
No. 2015/830

Revision date: 22/10/2019
Version: 14
Language: en-GB,IE
Date of print: 27/8/2020

Developer series AR 300-40

Material number AR 300-40

Page: 1 of 11

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

1.1 Product identifier

Trade name: Developer series AR 300-40

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

General use: Intermediate for electronic industry

1.3 Details of the supplier of the safety data sheet

Company name: Allresist
Gesellschaft für chemische Produkte zur Mikrostrukturierung mbH
Street/POB-No.: Am Biotop 14
Postal Code, city: 15344 Strausberg
WWW: www.allresist.de
E-mail: info@allresist.de
Telephone: +49 (0)33 41-35 93-0
Telefax: +49 (0)33 41-35 93-29
Department responsible for information:
Frau Dr. Zimmermann, Email: produktion@allresist.de

1.4 Emergency telephone number

Telephone: +49 (0)33 41-35 93-0
Only available during office hours.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

Met. Corr. 1; H290 May be corrosive to metals.
Acute Tox. 4; H302 Harmful if swallowed.
Acute Tox. 4; H312 Harmful in contact with skin.
Skin Corr. 1B; H314 Causes severe skin burns and eye damage.
STOT SE 2; H371 May cause damage to organs.
STOT RE 2; H373 May cause damage to organs through prolonged or repeated exposure.

2.2 Label elements

Labelling (CLP)



Signal word:

Danger



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Date of print: 27/8/2020

Developer series AR 300-40

Material number AR 300-40

Page:

2 of 11

Hazard statements: H290 May be corrosive to metals.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H371 May cause damage to organs.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements:
P234 Keep only in original packaging.
P260 Do not breathe mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor/....
P310 Immediately call a POISON CENTER/doctor.
P362+P364 Take off contaminated clothing and wash it before reuse.
P390 Absorb spillage to prevent material damage.

Special labelling

Text for labelling: Contains Tetramethylammonium hydroxide.

2.3 Other hazards

Special danger of slipping by leaking/spilling product.

Results of PBT and vPvB assessment:

No data available

SECTION 3: Composition / information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Chemical characterisation: aqueous solution

Hazardous ingredients:

Ingredient	Designation	Content	Classification
EC No. 200-882-9 CAS 75-59-2	Tetramethylammonium hydroxide	< 2.5 %	Acute Tox. 2; H300. Acute Tox. 1; H310. Skin Corr. 1B; H314. STOT SE 1; H370. STOT RE 1; H372. Aquatic Chronic 2; H411.

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

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: First aider: Pay attention to self-protection!
If medical advice is needed, have product container or label at hand. Take off immediately all contaminated clothing.

In case of inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately get medical attention.



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Developer series AR 300-40

Material number AR 300-40

Page:

3 of 11

- Following skin contact: After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Cover with sterile dressing material to protect against infection. Immediately get medical attention.
- After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Subsequently seek the immediate attention of an ophthalmologist.
- After swallowing: Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person.
Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

4.2 Most important symptoms and effects, both acute and delayed

May cause damage to organs. Harmful if swallowed.
Harmful in contact with skin. Causes severe skin burns and eye damage.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.

5.2 Special hazards arising from the substance or mixture

Fires in the immediate vicinity may cause the development of dangerous vapours. In case of fire may be liberated: nitrogen oxides (NO_x), hydrogen chloride, carbon monoxide and carbon dioxide.

5.3 Advice for firefighters

Special protective equipment for firefighters:

Use a breathing apparatus independent of the ambient air (isolated apparatus) and a full protection outfit (suit) against chemicals.

Additional information:

Hazchem-Code: 2X

Use fine water spray to cool endangered containers.

Do not allow water used to extinguish fire to enter drains, ground or waterways.

Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with the substance. Do not breathe mist/vapours/spray.

If possible, eliminate leakage. Ensure adequate ventilation, especially in confined areas.

Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Remove persons to safety. Keep unprotected people away.

6.2 Environmental precautions

Do not allow to enter into ground-water, surface water or drains.

If necessary notify appropriate authorities.



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No. 2015/830

Revision date: 22/10/2019

Version: 14

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Date of print: 27/8/2020

Developer series AR 300-40

Material number AR 300-40

Page:

4 of 11

6.3 Methods and material for containment and cleaning up

Absorb spillage to prevent material damage.

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents) and place in closed containers for disposal.

Final cleaning. Never return spills in original containers for re-use.

Additional information: Special danger of slipping by leaking/spilling product.

6.4 Reference to other sections

Refer additionally to section 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Do not breathe mist/vapours/spray. Avoid contact with skin, eyes, and clothing.

Wear appropriate protective equipment. Take off immediately all contaminated clothing and wash it before reuse.

Wash hands before breaks and after work. When using do not eat, drink or smoke.

When handling large quantities, supply emergency spray.

Precautions against fire and explosion:

Usual measures for fire prevention.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed and in a well-ventilated place.

Keep container dry. Keep only in the original container.

Protect from heat and direct sunlight.

Store containers in upright position.

Unsuitable materials: Bronze, aluminium, tin, zinc.

Storage temperature: 10 °C up to 22 °C.

Only trained personnel may be allowed to enter storage area.

Do not allow containers to stand open. Handle and open container with care.

Hints on joint storage:

Do not store together with: aluminium, tin, zinc, halogens, acids, oxidizing agents, ammonium compounds.

Keep away from food, drink and animal feedingstuffs.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Additional information: Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Provide for good ventilation or exhaust system or work with completely self-contained equipment. When aerosols and vapours form: Withdraw by suction.



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Revision date: 22/10/2019

Version: 14

Language: en-GB,IE

Date of print: 27/8/2020

Developer series AR 300-40

Material number AR 300-40

Page:

5 of 11

Personal protection equipment

Occupational exposure controls

- Respiratory protection: When aerosols and vapours form: Use appropriate respiratory protection. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.
- Hand protection: Protective gloves according to EN 374.
Glove material:
Polychloroprene 0.5 mm, nitrile rubber 0.35 mm, butyl caoutchouc (butyl rubber) 0.5 mm
Breakthrough time: > 480 min.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
- Eye protection: Tightly sealed goggles according to EN 166.
- Body protection: Wear suitable protective clothing.
- General protection and hygiene measures:
Do not get in eyes, on skin, or on clothing.
Take off immediately all contaminated clothing and wash it before reuse.
Contaminated work clothing should not be allowed out of the workplace.
Do not breathe mist/vapours/spray. When handling large quantities, supply emergency spray.
When using do not eat, drink or smoke. Wash hands before breaks and after work.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Form: liquid Colour: colourless
Odour:	weak amine-like
Odour threshold:	No data available
pH value:	at 20 °C: ≥ 11.5
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	non-flammable
Evaporation rate:	No data available
Flammability:	This product is non-flammable.
Explosion limits:	No data available
Vapour pressure:	at 20 °C: 23.33 hPa
Vapour density:	No data available
Density:	at 25 °C: approx. 1 g/mL
Water solubility:	at 20 °C: soluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity, kinematic:	No data available
Explosive properties:	No data available
Oxidizing characteristics:	No data available



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No. 2015/830

Revision date: 22/10/2019
Version: 14
Language: en-GB,IE
Date of print: 27/8/2020

Developer series AR 300-40

Material number AR 300-40

Page: 6 of 11

9.2 Other information

Additional information: No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

May be corrosive to metals.
Reactions with base metals under hydrogen development.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Violent reaction with strong oxidizing agents, acids.
Caution! With nitrosic agents (such as nitric salts or nitric oxides) under special conditions may form nitrosamines.

10.4 Conditions to avoid

Keep away from heat sources, sparks and open flames.
Protect from direct sunlight.

10.5 Incompatible materials

Metals, halogens, strong oxidizing agents, acids, nitric oxide, ammonium compounds

10.6 Hazardous decomposition products

No hazardous decomposition products when regulations for storage and handling are observed.

Thermal decomposition: No data available



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU)
No. 2015/830

Revision date: 22/10/2019
Version: 14
Language: en-GB,IE
Date of print: 27/8/2020

Developer series AR 300-40

Material number AR 300-40

Page: 7 of 11

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.
Acute toxicity (oral): Acute Tox. 4; H302 = Harmful if swallowed.
ATEmix (calculated): 300 mg/kg < ATE <= 2000 mg/kg.
Acute toxicity (dermal): Acute Tox. 4; H312 = Harmful in contact with skin.
ATEmix (calculated): 1000 mg/kg < ATE <= 2000 mg/kg.
Acute toxicity (inhalative): Lack of data.
Skin corrosion/irritation: Skin Corr. 1B; H314 = Causes severe skin burns and eye damage.
Serious eye damage/irritation: Lack of data.
Sensitisation to the respiratory tract: Lack of data.
Skin sensitisation: Lack of data.
Germ cell mutagenicity/Genotoxicity: Lack of data.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Lack of data.
Effects on or via lactation: Lack of data.
Specific target organ toxicity (single exposure): STOT SE 2; H371 = May cause damage to organs.
Specific target organ toxicity (repeated exposure): STOT RE 2; H373 = May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard: Lack of data.

Other information: Information about Tetramethylammonium hydroxide:
LD50 Rat, oral: 7-50 mg/kg.
LD50 Rat, dermal: 25 -50 mg/kg.
Systemic effects:
Nausea, vomiting, shortage of breath, unconsciousness, apnea, death.
With nitrosic agents (such as nitric salts or nitric oxides) under special conditions may form nitrosamines. In animal experiments nitrosamines were carcinogenic.

Symptoms

In case of inhalation:
Mucous membrane irritation, cough, shortage of breath, damage of respiratory tract.
Pulmonary edema is possible. Symptoms may occur with delay.
In case of ingestion:
Nausea, vomiting, shortage of breath, unconsciousness, apnea
After eye contact: Upon direct contact with eyes may cause burning, tearing, redness.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: Forms corrosive mixtures with water even if diluted. Harmful effects on water organisms by modification of pH-value.

12.2 Persistence and degradability

Further details: No data available



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No. 2015/830

Revision date: 22/10/2019
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Date of print: 27/8/2020

Developer series AR 300-40

Material number AR 300-40

Page: 8 of 11

12.3 Bioaccumulative potential

Bioconcentration factor (BCF):
no data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

General information: Do not allow to enter into ground-water, surface water or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 16 10 01* = Aqueous liquid wastes containing hazardous substances
* = Evidence for disposal must be provided.

Recommendation: Dispose of as special waste in compliance with local and national regulations.

Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation. Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA-DGR:
UN 1835

14.2 UN proper shipping name

ADR/RID, IMDG: UN 1835, TETRAMETHYLAMMONIUM HYDROXIDE SOLUTION
IATA-DGR: UN 1835, TETRAMETHYLAMMONIUM HYDROXIDE, SOLUTION

14.3 Transport hazard class(es)

ADR/RID: Class 8, Code: C7
IMDG: Class 8, Subrisk -
IATA-DGR: Class 8



14.4 Packing group

ADR/RID, IMDG, IATA-DGR:
II

14.5 Environmental hazards

Marine pollutant: no



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Developer series AR 300-40

Material number AR 300-40

Page: 9 of 11

14.6 Special precautions for user

Land transport (ADR/RID)

Warning board:	ADR/RID: Kemmler-number 80, UN number UN 1835
Hazard label:	8
Limited quantities:	1 L
EQ:	E2
Contaminated packaging - Instructions:	P001 IBC02
Special provisions for packing together:	MP15
Portable tanks - Instructions:	T7
Portable tanks - Special provisions:	TP2
Tank coding:	L4BN
Tunnel restriction code:	E

Sea transport (IMDG)

EmS:	F-A, S-B
Special provisions:	-
Limited quantities:	1 L
Excepted quantities:	E2
Contaminated packaging - Instructions:	P001
Contaminated packaging - Provisions:	-
IBC - Instructions:	IBC02
IBC - Provisions:	-
Tank instructions - IMO:	-
Tank instructions - UN:	T7
Tank instructions - Provisions:	TP2
Stowage and handling:	Category A.
Segregation:	SG35
Properties and observations:	Miscible with water. Reacts violently with acids.
Segregation group:	2, 18

Air transport (IATA)

Hazard label:	Corrosive
Excepted Quantity Code:	E2
Passenger and Cargo Aircraft: Ltd.Qty.:	Pack.Instr. Y840 - Max. Net Qty/Pkg. 0.5 L
Passenger and Cargo Aircraft:	Pack.Instr. 851 - Max. Net Qty/Pkg. 1 L
Cargo Aircraft only:	Pack.Instr. 855 - Max. Net Qty/Pkg. 30 L
Special provisions:	A3 A803
Emergency Response Guide-Code (ERG):	8L

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code:	2X
	No data available



SAFETY DATA SHEET

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No. 2015/830

Revision date: 22/10/2019
Version: 14
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Date of print: 27/8/2020

Developer series AR 300-40

Material number AR 300-40

Page: 10 of 11

National regulations - EC member states

Labelling of packaging with $\leq 125\text{mL}$ content



Signal word:

Danger

Hazard statements:

H314

Causes severe skin burns and eye damage.

Precautionary Statements:

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

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.

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

SECTION 16: Other information

Further information

Wording of the H-phrases under paragraph 2 and 3:

H290 = May be corrosive to metals.

H300 = Fatal if swallowed.

H302 = Harmful if swallowed.

H310 = Fatal in contact with skin.

H312 = Harmful in contact with skin.

H314 = Causes severe skin burns and eye damage.

H370 = Causes damage to organs.

H371 = May cause damage to organs.

H372 = Causes damage to organs through prolonged or repeated exposure.

H373 = May cause damage to organs through prolonged or repeated exposure.

H411 = Toxic to aquatic life with long lasting effects.



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No. 2015/830

Revision date: 22/10/2019
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Date of print: 27/8/2020

Developer series AR 300-40

Material number AR 300-40

Page: 11 of 11

Abbreviations and acronyms:

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
AS/NZS: Australian Standards/New Zealand Standards
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
CLP: Classification, Labelling and Packaging
DMEL: Derived minimal effect level
DNEL: Derived no-effect level
EC: European Community
EN: European Standard
EU: European Union
IATA: International Air Transport Association
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IMDG Code: International Maritime Dangerous Goods Code
LD50: Lethal dose 50%
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OSHA: Occupational Safety and Health Administration
PBT: Persistent, bioaccumulative and toxic
PNEC: Predicted no-effect concentration
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
STOT RE: Specific target organ toxicity - repeated exposure
STOT SE: Specific target organ toxicity - single exposure
UN: United Nations
vPvB: Very persistent and very bioaccumulative

Reason of change: General revision

Date of first version: 25/8/2010

Department issuing data sheet

Contact person: see section 1: Department responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.