### **ALLRESIST**



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Revision: 12.12.2021

# Safety data sheet according to 1907/2006/EC, Article 31

Printing date 12.12.2021

Version number 1.1 (replaces version 1.0)

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

· 1.1 Product identifier

· Trade name: <u>AR-N 2210</u>

· Article number: AR-N 2210

· 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



Flam. Liq. 2 H225 Highly flammable liquid and vapour.



Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

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

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#### · Hazard pictograms





GHS02

## · **Signal word** Danger

### · Hazard-determining components of labelling:

butanone

2-methoxy-1-methylethyl acetate

acetone

#### · Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

#### · 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.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection.

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

water [or shower].

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P405 Store locked up.

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

regulations.

#### · Additional information:

Product contains: Reportable explosives precursors. Making available, introduction, possession and use according to Regulation (EU) 2019/1148, Article 9.

- · 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: 78-93-3	butanone	50-100%
EINECS. 201-139-0	Tlam. Liq. 2, H225;  Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	
	2-methoxy-1-methylethyl acetate	10-25%
EINECS: 203-603-9	🚸 Flam. Liq. 3, H226; 🕠 STOT SE 3, H336	
CAS: 67-64-1	acetone	≥2.5-<10%
EINECS: 200-662-2	🌣 Flam. Liq. 2, H225; 🗘 Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	
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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: Immediately remove any clothing soiled by the product.
- · After skin contact: Immediately rinse with water.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: If symptoms persist consult 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

No further relevant information available.

### **SECTION 5: Firefighting measures**

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- 5.3 Advice for firefighters
- · Protective equipment: No special measures required.

### 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:

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).

Dispose 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 disposal information.

### SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: Store in a cool location.
- · Information about storage in one common storage facility: Not required.

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· Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

- · Recommended storage temperature: 10-18°C
- · Storage class (TRGS): 3
- · 7.3 Specific end use(s) No further relevant information available.

78-93-3 butanone  WEL Short-term value: 899 mg/m³, 300 ppm Long-term value: 600 mg/m³, 200 ppm Sk, BMGV  108-65-6 2-methoxy-1-methylethyl acetate  WEL Short-term value: 548 mg/m³, 100 ppm Long-term value: 3620 mg/m³, 1500 ppm Long-term value: 1210 mg/m³, 500 ppm DNELs  78-93-3 butanone  Oral DNEL Long-term - dermal, systemic effects DNEL Acute - dermal, local effects and possible of the possible		ol parameters ts with limit values that require i	monitoring at th	e workplace:
Long-term value: 600 mg/m³, 200 ppm   Sk, BMGV		-		
Sk, BMGV     108-65-6 2-methoxy-1-methylethyl acetate	WEL Shor	rt-term value: 899 mg/m³, 300 pp	pm	
108-65-6 2-methoxy-1-methylethyl acetate			m	
Short-term value: 274 mg/m³, 50 ppm   Sk	,		2	
Long-term value: 274 mg/m³, 50 ppm   Sk				
Short-term value: 3620 mg/m³, 1500 ppm   Long-term value: 1210 mg/m³, 500 ppm				
Short-term value: 3620 mg/m³, 500 ppm   DNELs	1.5			
DNELs				
DNELs  78-93-3 butanone  Oral DNEL Long-term - oral, systemic effects   1.161 mg/kg bw/day (general public)   DNEL Long-term - dermal, systemic effects   1.161 mg/kg (general public)   DNEL Acute - dermal, local effects   412 mg/kg (general public)   DNEL Long-term - inhalation, systemic effects   600 mg/m³/day (Worker)   106 mg/m³/day (general public)    108-65-6 2-methoxy-1-methylethyl acetate  Oral DNEL Long-term - oral, systemic effects   1.67 mg/kg bw/day (rat)   DNEL Long-term - dermal, systemic effects   153.5 mg/kg bw/day (rat)   DNEL long-term - inhalation local effects   33 mg/m³ (rat)   DNEL Long-term - inhalation, systemic effects   2,420 mg/m³ (rat)   DNEL Acute - inhalation, local effects   186 mg/kg bw/day (general public)   DNEL Long-term - dermal, systemic effects   186 mg/kg bw/day (general public)   DNEL Long-term - inhalation local effects   2,420 mg/m³ (Worker)   DNEL Long-term - inhalation local effects   2,420 mg/m³ (Worker)   DNEL Long-term - inhalation systemic effects   1,210 mg/m³/day (Worker)   DNEL Acute inhalation systemic effects   2,420 mg/m³ (Worker)				
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/ U= / I= / 1000000000		utanone		
PNEC short term, fresh water 55.8 mg/l (Aquatic organisms)		<b> </b>	.8 mg/l (Aquatic	

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	(Conta	d. of pa
PNEC short term, sewage plant	709 mg/l (Aquatic organisms)	
$PNEC\ short\ term\ fresh\ water\ sediment$	284.7 mg/kg (Aquatic organisms)	
PNEC short term soil	22.5 mg/kg (teresstric organismens)	
PNEC short term, intermittent releases	55.8 mg/l (Aquatic organisms)	
108-65-6 2-methoxy-1-methylethyl acc	etate	
PNEC short term, fresh water	0.635 mg/l (Aquatic organisms)	
PNEC short term, sea water	0.0635 mg/l (Aquatic organisms)	
PNEC short term, sewage plant	100 mg/l (Aquatic organisms)	
PNEC short term fresh water sediment	3.29 mg/kg (Aquatic organisms)	
PNEC short term soil	0.29 mg/kg (Aquatic organisms)	
PNEC short term sea water sediment	0.329 mg/kg (Aquatic organisms)	
PNEC short term, intermittent releases	6.35 mg/l (Aquatic organisms)	
67-64-1 acetone		
PNEC short term, fresh water	10.6 mg/l (Aquatic organisms)	
PNEC short term, sea water	1.06 mg/l (Aquatic organisms)	
PNEC short term, sewage plant	100 mg/l (Aquatic organisms)	
PNEC short term fresh water sediment	30.4 mg/kg (Aquatic organisms)	
PNEC short term soil	29.5 mg/kg (Aquatic organisms)	
PNEC short term sea water sediment	3.04 mg/kg (Aquatic organisms)	
PNEC short term, intermittent releases	21 mg/l (Aquatic organisms)	
Ingredients with biological limit value	is:	
78-93-3 butanone		
BMGV 70 µmol/L Medium: urine Sampling time: post shift		
Sampling time: post shift Parameter: butan-2-one		

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Appropriate engineering controls No further data; see item 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.

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



Protective gloves

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

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### · 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
Colour:
Odour:
Odour threshold:
Melting point/freezing point:
Fluid
Brown
Ester-like
Not determined
Undetermined

· Boiling point or initial boiling point and boiling

range 145 °C

· Flammability Not applicable.

Lower and upper explosion limit

Lower: 1.5 Vol %
 Upper: 10.8 Vol %
 Flash point: 12 °C

· Auto-ignition temperature: Product is not selfigniting.

• **Decomposition temperature:** Not determined.

• pH Mixture is non-soluble (in water).

· Viscosity:

Kinematic viscosity Dynamic: Not determined. Not determined.

·Solubility

water: Fully miscible.
Partition coefficient n-octanol/water (log value) Not determined.

· Vapour pressure at 20 °C: 3.1 hPa

· Density and/or relative density

Density at 20 °C:
Relative density
Vapour density

1.04 g/cm³
Not determined.
Not determined.

9.2 Other information

· Appearance:

· Form: Fluid · Important information on protection of health and

environment, and on safety.

• Ignition temperature: 315 °C

• Explosive properties: Product is not explosive. However, formation of

explosive air/vapour mixtures are possible.

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		(Contd. of page
Solvent content:		
Organic solvents:	96.1 %	
VOC (EC)	96.06 %	
Change in condition		
Evaporation rate	Not determined.	
Information with regard to physical hazard o	classes	
Explosives	Void	
Flammable gases	Void	
Aerosols	Void	
Oxidising gases	Void	
Gases under pressure	Void	
Flammable liquids	Highly flammable liquid and vapour.	
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 flamm	able	
gases in contact with water	Void	
Oxidising liquids	Void	
Oxidising solids	Void	
Organic peroxides	Void	
Corrosive to metals	Void	
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.

## **SECTION 11: Toxicological information**

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

· LD/LC5	LD/LC50 values relevant for classification:		
78-93-3	butano	one	
Oral	LD50	3,300 mg/kg (rat)	
Dermal	<i>LD50</i>	5,000 mg/kg (rabbit)	
108-65-	108-65-6 2-methoxy-1-methylethyl acetate		
Oral	<i>LD50</i>	8,532 mg/kg (rat)	
67-64-1	67-64-1 acetone		
Oral	LD50	5,800 mg/kg (rat)	
Dermal	LD50	20,000 mg/kg (rabbit)	

- Serious eye damage/irritation Causes serious eye irritation.
- · STOT-single exposure May cause drowsiness or dizziness.

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· 11.2 Information on other hazards
· Endocrine disrupting properties

78-93-3 butanone
(Contd. of page 7)
List II

## SECTION 12: Ecological information

	LC50 (4h)	>100 mg/ltr	at) r (Fish) (OECD 203)	
	LC50 (96h) mg/ltr. LC50 (48h) mg/ltr	2,990 mg/ltr >100 mg/ltr		
	LC50 (48h) mg/ltr	>100 mg/ltr	r (Fish) (OECD 203)	
	, , ,	_		
	EC50 (48h)		· (Fish)	
		>100 mg/l (algae)		
		>100 mg/l (	Daphnia magna)	
		308 mg/l (dd	aphnia) (OECD 202)	
	EC50 (72h)	1,972 mg/l (	Pseudokirchneriella subcapitata)	
	NOEC	1,150 mg/m	l (Microorganism)	
108-65-6 2	-methoxy-1-methyl	ethyl acetate		
Inhalative	ve $ LC50 (4h)$   $ 35.7 \text{ mg/l} (h)$		at)	
	LC50 (96h) mg/ltr.	>100 mg/ltr (Fish)		
		100-180 mg/ltr (Oncorhynchus mykiss)		
		134 mg/ltr (rainbow trout)		
EC50 (48h)		408 mg/l (dd	aphnia)	
	ErC50 (96h)	>1,000 mg/l	ltr (algae)	
	NOEC	100 mg/ml (	(daphnia)	
67-64-1 ac	etone			
Inhalative	LC50 (4h)	76 mg/l (rat		
	LC50 (96h) mg/ltr.	8,300 mg/ltr	r (Fish)	
	LC50 (48h) mg/ltr	8,450 mg/ltr	r (daphnia)	
	EC50 (48h)	8,800 mg/l (	(Daphnia magna)	
	EC50 (96h) mg/ltr	7,200 mg/ltr	r (algae)	
	NOEC	4,740 mg/m	l (Pseudokirchneriella subcapitata)	
		2,212 mg/m	l (daphnia)	
12.2 Persis	tence and degradal	oility		
78-93-3 b		•	98 %	
108-65-6 2	8-65-6 2-methoxy-1-methylethyl acetate		90 %	
67-64-1 a		-	91 %	

- · 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 For information on endocrine disrupting properties see section 11.
- · 12.7 Other adverse effects No further relevant information available.

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- · 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.

## 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.

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

KETONE (METHYL ETHYL KETONE), 2-methoxy nethylethyl acetate)
1993 FLAMMABLE LIQUID, N.O.S. (ETHYL METH KETONE (METHYL ETHYL KETONE), 2-methoxy nethylethyl acetate) FLAMMABLE LIQUID, N.O.S. (ETHYL METH
KETONE (METHYL ETHYL KETONE), 2-methoxy nethylethyl acetate)
KETONE (METHYL ETHYL KETONE), 2-methoxy nethylethyl acetate)
3 Flammable liquids. 3
TI
Not applicable.
Warning: Flammable liquids.
33
F-E, <u>S-E</u>
3
Not applicable.
II.

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	(Contd. of page
· 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	D/E
$\cdot$ IMDG	
· Limited quantities (LQ)	IL
Excepted quantities $(\widetilde{EQ})$	Code: E2
	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1993 FLAMMABLE LIQUID, N.O.S. (ETHY METHYL KETONE (METHYL ETHYL KETONE), 2 METHOXY-1-METHYLETHYL ACETATE), 3, II

## 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.

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category P5c FLAMMABLE LIQUIDS
- · Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
- · National regulations:
- · **VOC (EU)** 999-<999.1 g/l
- · 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

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

- · Department issuing SDS: Quality Management department
- · Contact: MSDS authorized Person

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#### · 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)

DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2 Flam. Liq. 3: Flammable liquids – Category 3

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3