



# SAFETY DATA SHEET

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

Revision date: 13/6/2018

Version: 10

Language: en-GB,IE

Date of print: 6/7/2018

## Thinner AR-P 617

Material number AR-P 617

Page:

1 of 10

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

### 1.1 Product identifier

Trade name: Thinner AR-P 617  
REACH registration No.: 01-2119457435-35-xxxx

CAS-Number: 107-98-2  
EC-number: 203-539-1  
EU index number: 603-064-00-3

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

General use: Intermediate for electronic industry  
For industrial purposes only

### 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  
Germany  
WWW: [www.allresist.de](http://www.allresist.de)  
E-mail: [info@allresist.de](mailto:info@allresist.de)  
Telephone: +49 (0)33 41-35 93-0  
Telefax: +49 (0)33 41-35 93-29  
Dept. responsible for information:  
Frau Feldt, Email: [doerte.feldt@allresist.de](mailto:doerte.feldt@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)

Flam. Liq. 3; H226 Flammable liquid and vapour.  
STOT SE 3; H336 May cause drowsiness or dizziness.

### 2.2 Label elements

#### Labelling (CLP)



Signal word:

**Warning**

Hazard statements:

H226

Flammable liquid and vapour.

H336

May cause drowsiness or dizziness.



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## Thinner AR-P 617

Material number AR-P 617

Page: 2 of 10

Precautionary statements: P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing vapours/spray.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P312	Call a POISON CENTER/doctor if you feel unwell.
P370+P378	In case of fire: Use water spray, dry powder, foam or carbon dioxide for extinction.
P403+P235	Store in a well-ventilated place. Keep cool.

### 2.3 Other hazards

Potentially explosive mixtures may form if adequate ventilation is not provided.  
Inhaling can lead to irritations of the respiratory tract and mucous membrane.  
Higher doses may lead to a narcotic effect.  
Special danger of slipping by leaking/spilling product.

Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

## SECTION 3: Composition / information on ingredients

### 3.1 Substances

Chemical characterisation: C<sub>4</sub> H<sub>10</sub> O<sub>2</sub> = CH<sub>3</sub>-CHOH-CH<sub>2</sub>-O-CH<sub>3</sub>  
1-Methoxy-2-propanol

CAS-Number: 107-98-2  
EC-number: 203-539-1  
EU index number: 603-064-00-3  
RTECS-Number: UB7700000

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General information:	If medical advice is needed, have product container or label at hand. First aider: Pay attention to self-protection!
In case of inhalation:	Move victim to fresh air; if necessary, provide artificial respiration or oxygen. Seek medical treatment in case of troubles.
Following skin contact:	Remove residues with soap and water. Take off contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.
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 consult 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. Seek medical attention.

### 4.2 Most important symptoms and effects, both acute and delayed

May cause drowsiness or dizziness.  
Inhaling can lead to irritations of the respiratory tract and mucous membrane.  
Higher doses may lead to a narcotic effect.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.



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Revision date: 13/6/2018

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Date of print: 6/7/2018

## Thinner AR-P 617

Material number AR-P 617

Page:

3 of 10

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media:

Water spray jet, extinguishing powder, carbon dioxide.

In case of large fires: water spray jet or alcohol resistant foam.

Extinguishing media which must not be used for safety reasons:

Full water jet

#### 5.2 Special hazards arising from the substance or mixture

Flammable liquid and vapour. With air, vapours form potentially explosive mixtures, which are heavier than air. Vapours may proceed on the ground over great distances and cause fire and backflashes. In case of fire may be liberated: carbon monoxide and carbon dioxide.

#### 5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Additional information:

Hazchem-Code: •2Y

Heating will lead to pressure increase: Danger of bursting and explosion. Use fine water spray to cool endangered containers.

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Do not allow fire water to penetrate into surface or ground water. Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities. Suppress gases/vapours/mists with water spray jet.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Eliminate all ignition sources if safe to do so. Wear appropriate protective equipment. Provide adequate ventilation. Do not breathe vapour/aerosol. Avoid contact with the substance. Take off immediately all contaminated clothing and wash it before reuse. If possible, eliminate leakage. Cordon off downwind area at risk and warn inhabitants. Keep unprotected people away.

#### 6.2 Environmental precautions

Do not allow to enter into ground-water, surface water or drains. Danger of explosion! In case of release, notify competent authorities.

#### 6.3 Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).

Beware of reignition. Thoroughly clean surrounding area.

In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out).

Additional information:

Use explosion-proof equipment and non-sparking tools/utensils.

Special danger of slipping by leaking/spilling product.

#### 6.4 Reference to other sections

Refer additionally to section 8 and 13.



# SAFETY DATA SHEET

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

Revision date: 13/6/2018

Version: 10

Language: en-GB,IE

Date of print: 6/7/2018

## Thinner AR-P 617

Material number AR-P 617

Page:

4 of 10

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed.

Avoid contact with skin, eyes, and clothing.

Wear appropriate protective equipment. When using do not eat, drink or smoke. Do not breathe vapour/aerosol. Take off immediately all contaminated clothing and wash it before reuse. Wash hands thoroughly after handling. Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation. When handling large quantities, supply emergency spray.

Precautions against fire and explosion:

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting equipment. Do not weld. In partially filled containers explosive mixtures may form.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep only in original container. Keep container dry, tightly closed and store at cool and aired place. Protect from heat and direct sunlight. Avoid admission of air/oxygene (formation of peroxide).

Suitable material: stainless steel, steel.

Unsuitable materials: aluminium, light metals, copper.

Storage temperature: 10 - 22 °C.

Hints on joint storage:

Avoid contact with strong acids, strong bases and strong oxidizing agents.

Keep away from combustible materials.

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

Occupational exposure limit values:

Type	Limit value
Europe: IOELV: STEL	568 mg/m <sup>3</sup> ; 150 ppm (may be absorbed through the skin)
Europe: IOELV: TWA	375 mg/m <sup>3</sup> ; 100 ppm (may be absorbed through the skin)
Great Britain: WEL-STEL	560 mg/m <sup>3</sup> ; 150 ppm
Great Britain: WEL-TWA	375 mg/m <sup>3</sup> ; 100 ppm
Ireland: 15 minutes	568 mg/m <sup>3</sup> ; 150 ppm
Ireland: 8 hours	375 mg/m <sup>3</sup> ; 100 ppm

Additional information: The product can be absorbed through skin.

DNEL/DMEL:

Systemic effects:

DNEL workers, long-term, inhalative: 369 mg/m<sup>3</sup>

DNEL workers, short-term, inhalative: 553.5 mg/m<sup>3</sup>

DNEL workers, long-term, dermal: 50.6 mg/kg bw/d

DNEL consumers, long-term, inhalative: 43.9 mg/m<sup>3</sup>

DNEL consumers, long-term, dermal: 18.1 mg/kg bw/d

DNEL consumers, long-term, oral: 3.3 mg/kg bw/d



# SAFETY DATA SHEET

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

Revision date: 13/6/2018

Version: 10

Language: en-GB,IE

Date of print: 6/7/2018

## Thinner AR-P 617

Material number AR-P 617

Page: 5 of 10

PNEC: PNEC water (freshwater): 10 mg/L  
PNEC water (marine water): 1 mg/L  
PNEC water (intermittent release): 100 mg/L  
PNEC sewage treatment plant: 100 mg/L  
PNEC sediment (freshwater): 52.3 mg/kg dw  
PNEC sediment (marine water): 5.2 mg/kg dw  
PNEC floor: 4.59 mg/kg dw

### 8.2 Exposure controls

Provide for good ventilation or exhaust system or work with completely self-contained equipment. Explosion protection required.

### Personal protection equipment

#### Occupational exposure controls

Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded. Use filter type A (= against vapours of organic substances) according to EN 14387. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product.

Hand protection: Protective gloves according to EN 374.  
Glove material: Butyl caoutchouc (butyl rubber)-Layer thickness:  $\geq 0.7$  mm.  
Breakthrough time:  $\geq 480$  min.  
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.  
Unsuitable materials: natural rubber, nitrile rubber, PVC.

Eye protection: Tightly sealed goggles according to EN 166.

Body protection: Flame retardant, antistatic and chemical resistant protective clothing.

General protection and hygiene measures:

Avoid contact with skin, eyes, and clothing. When using do not eat, drink or smoke. Wash hands before breaks and after work. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Do not breathe vapour/aerosol. Take off immediately all contaminated clothing and wash it before reuse. When handling large quantities, supply emergency spray.

### Environmental exposure controls

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

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance: Physical state at 20 °C and 101.3 kPa: liquid  
Colour: colourless

Odour: alcoholic  
Odour threshold: not determined

pH value: at 20 °C, 200 g/L: 4 - 7

Melting point/freezing point: -95 °C  
Initial boiling point and boiling range: 119 - 122 °C  
Flash point/flash point range: 32 °C  
Evaporation rate: No data available

Flammability: Flammable liquid and vapour.  
Explosion limits: LEL (Lower Explosion Limit): 1.70 Vol-%  
UEL (Upper Explosive Limit): 11.50 Vol-%

Vapour pressure: at 20 °C: 13 hPa  
Vapour density: No data available



# SAFETY DATA SHEET

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

Revision date: 13/6/2018

Version: 10

Language: en-GB,IE

Date of print: 6/7/2018

## Thinner AR-P 617

Material number AR-P 617

Page: 6 of 10

Density:	at 20 °C: 0.922 g/mL
Water solubility:	at 20 °C: complete miscible
Partition coefficient: n-octanol/water:	at 20 °C: < 1 log P(o/w) Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity, dynamic:	at 25 °C: 1.9 mPa*s
Explosive properties:	Product is not explosive. May form explosive peroxides. On contact with air, potentially explosive mixtures may develop.
Oxidizing characteristics:	Product has no oxidizing effect.

### 9.2 Other information

Ignition temperature:	270 °C
Refraction index:	at 20 °C: 1.404
Solvent content:	100 %
Molecular weight	90.12 g/mol
Additional information:	Temperature class: T3 (DIN VDE 0165) Relative vapour density at 20 °C (air=1): 3.11

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Flammable liquid and vapour.  
Vapours can form explosive mixtures with air.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Heating will lead to pressure increase: Danger of bursting and explosion.  
May form explosive peroxides.

### 10.4 Conditions to avoid

Avoid admission of air/oxygene (formation of peroxide).  
Keep away from heat sources, sparks and open flames.  
Protect against direct sunlight.

### 10.5 Incompatible materials

Strong acids, strong bases, strong oxidizing agents.

### 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: 13/6/2018

Version: 10

Language: en-GB,IE

Date of print: 6/7/2018

## Thinner AR-P 617

Material number AR-P 617

Page: 7 of 10

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

Acute toxicity: LD50 Rat, oral: 4016 mg/kg  
LD50 Rabbit, dermal: 13000 mg/kg  
LC50 Rat, inhalative: 54.6 mg/L/4h

Toxicological effects: Acute toxicity (oral): Based on available data, the classification criteria are not met.  
Acute toxicity (dermal): Based on available data, the classification criteria are not met.  
Acute toxicity (inhalative): Based on available data, the classification criteria are not met.  
Skin corrosion/irritation: Based on available data, the classification criteria are not met.  
Specific symptoms in animal studies, rabbit: (in-vivo): Not an irritant (EU B.4)  
Serious eye damage/irritation: Based on available data, the classification criteria are not met.  
Specific symptoms in animal studies, rabbit: (in-vivo): Not an irritant (EU B.5)  
Sensitisation to the respiratory tract: Lack of data.  
Skin sensitisation: Based on available data, the classification criteria are not met.  
Specific symptoms in animal studies, guinea pig (in-vivo): not sensitising (EU B.6)  
Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met. In-vitro:  
Gene-mutations mammalian cells: negative (OECD 476).  
Chromosomal aberrations mammalian cells: negative (OECD 473).  
Bacterial mutagenicity: negative (Ames test, OECD 471) .  
In-vivo:  
Micronucleus test: negative (OECD 474).  
Carcinogenicity: Based on available data, the classification criteria are not met.  
NOAEL (inhalative), Mouse (male/female): 1000 ppm (OECD 453)  
NOAEL (inhalative), rat (male/female): 300 ppm (OECD 453)  
Reproductive toxicity: Based on available data, the classification criteria are not met.  
Reproduction toxicity: NOAEL (inhalative), rat (male/female): 300 ppm (OECD 416)  
Developmental toxicity: NOAEC (inhalative), rat (male/female): 1500 ppm (OECD 414)  
Effects on or via lactation: Lack of data.  
Specific target organ toxicity (single exposure): STOT SE 3; H336 = May cause drowsiness or dizziness.  
Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.  
NOAEL (oral), rat (male): 919 mg/kg/d (OECD 407)  
NOEL (inhalative), rat (male/female): 300 ppm (OECD 453)  
NOEAL (inhalative), Rabbit (male/female): >1000 mg/kg/d (OECD 410)  
Aspiration hazard: Lack of data.

#### Symptoms

The product can cause irritation of the eyes. Danger of cutaneous absorption.  
Other symptoms: Mucous membrane irritation, vomiting, Skin defatting, dizziness, headache.



# SAFETY DATA SHEET

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

Revision date: 13/6/2018  
Version: 10  
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Date of print: 6/7/2018

## Thinner AR-P 617

Material number AR-P 617

Page: 8 of 10

### SECTION 12: Ecological information

#### 12.1 Toxicity

Aquatic toxicity: Algae toxicity:  
EC50 Pseudokirchneriella subcapitata (green algae): > 1000 mg/L/7 d.  
Daphnia toxicity:  
LC50 Daphnia magna (Big water flea): 21100 - 25900 mg/L/48h.  
Fish toxicity:  
LC50 Leuciscus idus: 4600 - 10000 mg/L/96 h.  
LC50 Pimephales promelas (fathead minnow): 20800 mg/L/96 h.  
LC50 Oncorhynchus mykiss: > 1000 mg/L/96 h.  
LC50 S. gairdnerii: > 1000 mg/L

#### 12.2 Persistence and degradability

Analytical method: OECD 301E  
Degree of elimination: DOC reduction (28 days) 96%  
Evaluation text: Product is readily biodegradable.  
Oxygen demand: BOD: > 60%  
Effects in sewage plants: toxicity to microorganisms:  
IC50 activated sludge: > 1000 mg/L/3h (OECD 209).

#### 12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:  
at 20 °C: < 1 log P(o/w)  
Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.

#### 12.4 Mobility in soil

Technically correct releases of minimal concentrations to adapted biological sewage plants, will not disturb the biodegradability of activated sludge.

#### 12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

#### 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: 07 01 04\* = organic solvents, halogen-free  
\* = Evidence for disposal must be provided.  
Recommendation: Dispose of waste according to applicable legislation.  
Do not dispose of with household waste.  
Do not empty into drains.

##### Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation.  
Handle contaminated packages in the same way as the substance itself.  
Handle empty containers with care. Incineration may cause explosion.  
Non-contaminated packages may be recycled.





# SAFETY DATA SHEET

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Revision date: 13/6/2018  
Version: 10  
Language: en-GB,IE  
Date of print: 6/7/2018

## Thinner AR-P 617

Material number AR-P 617

Page: 9 of 10

### Additional information

Recommended cleansing agent: water add detergent, if necessary.

## SECTION 14: Transport information

### 14.1 UN number

ADR/RID, IMDG, IATA-DGR:

UN 3092

### 14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

UN 3092, 1-METHOXY-2-PROPANOL

### 14.3 Transport hazard class(es)

ADR/RID:

Class 3, Code: F1

IMDG:

Class 3, Subrisk -

IATA-DGR:

Class 3



### 14.4 Packing group

ADR/RID, IMDG, IATA-DGR:

III

### 14.5 Environmental hazards

Marine pollutant:

no

### 14.6 Special precautions for user

#### Land transport (ADR/RID)

Warning board:

ADR/RID: Kemmler-number 30, UN number UN 3092

Hazard label:

3

Limited quantities:

5 L

EQ:

E1

Contaminated packaging - Instructions:

P001 IBC03 LP01 R001

Special provisions for packing together:

MP19

Portable tanks - Instructions:

T2

Portable tanks - Special provisions:

TP1

Tank coding:

LGBF

Tunnel restriction code:

D/E

#### Sea transport (IMDG)

EmS:

F-E, S-D

Special provisions:

-

Limited quantities:

5 L

Excepted quantities:

E1

Contaminated packaging - Instructions:

P001, LP01

Contaminated packaging - Provisions:

-

IBC - Instructions:

IBC03

IBC - Provisions:

-

Tank instructions - IMO:

-

Tank instructions - UN:

T2

Tank instructions - Provisions:

TP1

Stowage and handling:

Category A.

Properties and observations:

Colourless liquid. Flashpoint: 29°C to 35°C c.c. Explosive limits: 1,7% to 11,5%. Miscible with water. Reacts with strong oxidizing substances. Irritating to skin, eyes and mucous membranes

Segregation group:

none



# SAFETY DATA SHEET

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

Revision date: 13/6/2018  
Version: 10  
Language: en-GB,IE  
Date of print: 6/7/2018

## Thinner AR-P 617

Material number AR-P 617

Page: 10 of 10

### Air transport (IATA)

Hazard label:	Flamm. liquid
Excepted Quantity Code:	E1
Passenger and Cargo Aircraft: Ltd.Qty.:	Pack.Instr. Y344 - Max. Net Qty/Pkg. 10 L
Passenger and Cargo Aircraft:	Pack.Instr. 355 - Max. Net Qty/Pkg. 60 L
Cargo Aircraft only:	Pack.Instr. 366 - Max. Net Qty/Pkg. 220 L
Emergency Response Guide-Code (ERG):	3L

### 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: •2Y  
No data available

#### National regulations - EC member states

Volatile organic compounds (VOC):  
100 % by weight = 922 g/L

#### Labelling of packaging with <= 125mL content



Signal word: **Warning**  
Hazard statements: not applicable  
Precautionary statements: not applicable  
Further regulations, limitations and legal requirements:  
Use restriction according to REACH annex XVII, no.: 3

### 15.2 Chemical Safety Assessment

No data available

## SECTION 16: Other information

### Further information

Reason of change: Changes in section 2: Labelling  
Changes in section 15: Regulatory information  
Date of first version: 18/8/2010

### Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

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.

