

SAFETY DATA SHEET

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



E-Beam Resists AR-P 632, 642 ... 672

Revision date: 24/2/2016

Version: 5

Language: en-GB,IE

Date of print: 24/2/2016

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

1.1 Product identifier

Trade name: E-Beam Resists AR-P 632, 642 ... 672

CAS-Number: 100-66-3

EC-number: 202-876-1

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
Germany
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
Dept. responsible for information:
Frau Feldt, Email: 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.

2.2 Label elements

Labelling (CLP)



Warning

Signal word:

Hazard statements: H226

Flammable liquid and vapour.

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Precautionary statements:

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

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

P370+P378 In case of fire: Use dry powder, foam or carbon dioxide for extinction.

P403+P235 Store in a well-ventilated place. Keep cool.

2.3 Other hazards

No risks worthy of mention.

SECTION 3: Composition / information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Hazardous ingredients:

Ingredient	Designation	Content	Classification
EC No. 202-876-1 CAS 100-66-3	Anisole	> 80 %	CLP: Flam. Liq. 3; H226

SECTION 4: First aid measures

4.1 Description of first aid measures

In case of inhalation: Provide fresh air. Seek medical attention.

Following skin contact: Remove residues with water. Change contaminated clothing. Seek medical attention.

After eye contact: With eyelids open, wash out eyes for several minutes under flowing water. Subsequently consult an ophthalmologist.

After swallowing: Caution if victim vomits: Risk of aspiration! Immediately get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

In case of inhalation: Mucous membrane irritation, cough, shortage of breath

In case of ingestion:

Systemic effects: Nausea, vomiting, agitation, spasms, Headache, tremors.

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:

foam, extinguishing powder, carbon dioxide.

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5.2 Special hazards arising from the substance or mixture

Flammable liquid and vapour. The vapours of the product are heavier than air. Explosive mixtures with air may even form at room temperature.

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 breathing apparatus. Wear suitable protective clothing.

Additional information: Hazchem-Code: 3Y

Move container away or cool with water from a protected position. Do not allow fire water to penetrate into surface or ground water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with the substance. Do not breathe vapour/aerosol.

Ensure adequate ventilation, especially in confined areas.

6.2 Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains. Danger of explosion!

6.3 Methods and material for containment and cleaning up

Soak up with absorbent materials such as sand, siliceous earth, acid- or universal binder.

Store in special closed containers and dispose of according to ordinance. Final cleaning.

6.4 Reference to other sections

not required

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Avoid contact with skin.

Provide adequate ventilation, and local exhaust as needed.

Precautions against fire and explosion:

Keep away from sources of ignition and heat. Take precautionary measures against static discharges.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

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

Storage temperature 10 - 22 °C.

Storage class: 10 = Combustible liquids, unless storage class 3

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.

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8.2 Exposure controls

When aerosols and vapours form: Withdraw by suction.

Personal protection equipment

Occupational exposure controls

Respiratory protection: If vapours form, use respiratory protection.

Use filter type A (= against vapours of organic substances) according to EN 14387.

Hand protection: Protective gloves according to EN 374.

Glove material: Fluororubber (Viton) - Layer thickness: 0.70 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: In case of handling larger quantities: Flame-resistant antistatic protective clothing

General protection and hygiene measures:

Use only non-sparking tools. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

Do not breathe vapour/aerosol. Avoid contact with skin and eyes.

Take off immediately all contaminated clothing.

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
Odour:	Colour: colourless
Odour threshold:	aromatic
pH value:	no data available
Melting point/freezing point:	-37 °C
Initial boiling point and boiling range:	156 °C
Flash point/flash point range:	44 °C (c.c.)
Evaporation rate:	no data available
Flammability:	no data available
Explosion limits:	LEL (Lower Explosion Limit): 0.34 Vol-% UEL (Upper Explosive Limit): 6.30 Vol-%
Vapour pressure:	at 20 °C: 3.2 hPa
Vapour density:	no data available
Density:	at 20 °C: 0.995 g/mL
Water solubility:	at 25 °C: 1.6 g/L
Partition coefficient: n-octanol/water:	2.11 log P(o/w) Appreciable bio-accumulation is not to be expected (log P(o/w 1-3).
Auto-ignition temperature:	no data available
Thermal decomposition:	> 490 °C
Viscosity, dynamic:	at 15 °C: 1.42 mPa*s
Explosive properties:	no data available
Oxidizing characteristics:	no data available

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9.2 Other information

Ignition temperature: 475 °C

Refractive index: at 20 °C: 1.518

Additional information: Molar mass: 108.14 g/mol
Relative vapour density (air=1): 3.7

SECTION 10: Stability and reactivity

10.1 Reactivity

Flammable liquid and vapour. In case of heating: Vapours can form explosive mixtures with air.

10.2 Chemical stability

Sensitive to air.

10.3 Possibility of hazardous reactions

Danger of explosion with: Access of air and oxygen (Peroxide formation!)
Violent reaction with: strong oxidizing agents, strong acids, alkalis.

10.4 Conditions to avoid

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

10.5 Incompatible materials

see section 10.3

10.6 Hazardous decomposition products

In case of fire may be liberated: Carbon monoxide and carbon dioxide.

Thermal decomposition: > 490 °C

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

LD50 Rat, oral: 3700 mg/kg (RTECS)

LC50 Rat, inhalative: > 6.51 mg/L/4h

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Toxicological effects: Acute toxicity (oral): Lack of data.
Acute toxicity (dermal): Lack of data.
Acute toxicity (inhalative): Lack of data.
Skin corrosion/irritation: Lack of data.
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: Lack of data.
Reproductive toxicity: Lack of data.
Effects on or via lactation: Lack of data.
Specific target organ toxicity (single exposure): Lack of data.
Specific target organ toxicity (repeated exposure): Lack of data.
Aspiration hazard: Lack of data.
After swallowing: When swallowed and vomited immediately, aspiration into the lungs may occur resulting in chemical pneumonia or suffocation.
Following skin contact: Specific symptoms in animal studies (Rabbit): mild irritant.
After eye contact: Specific symptoms in animal studies (Rabbit): Does not cause irritation.
Other information: Further hazardous properties cannot be excluded.

Symptoms

In case of inhalation: Mucous membrane irritation, cough, shortage of breath
In case of ingestion:
Systemic effects: Nausea, vomiting, agitation, spasms, Headache, tremors.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: Daphnia toxicity:
EC50 Daphnia magna (Big water flea): 40 mg/L/24h
Fish toxicity:
LC50 Brachydanio rerio (zebra-fish): >1 mg/L/96h (Source: ECOTOX)

12.2. Persistence and degradability

Further details: Biodegradation: approx. 68 % (OECD 301 D).
Product is readily biodegradable.
Abiotic degradation: (Air)

Oxygen demand:

ThOD: 2,52 g/g

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:
2.11 log P(o/w)
Appreciable bio-accumulation is not to be expected (log P(o/w 1-3)).

12.4 Mobility in soil

no data available

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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: 07 01 04* = organic solvents, halogen-free

* = Evidence for disposal must be provided.

Recommendation: Incinerate as hazardous waste according to applicable local, state, and federal regulations.

Contaminated packaging

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

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA: UN 2222

14.2 UN proper shipping name

ADR/RID, IMDG, IATA: UN 2222, Anisole solution

14.3 Transport hazard class(es)

ADR/RID: Class 3, Code: F1

IMDG: Class 3, Subrisk -

IATA: Class 3



14.4 Packing group

ADR/RID, IMDG, IATA: III

14.5 Environmental hazards

Marine pollutant: No

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14.6 Special precautions for user

Land transport (ADR/RID)

Warning board:	ADR/RID: Kemmler-number 30, UN number 2222
Hazard label:	3
Limited quantities:	5L
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:	5L
EQ:	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 to yellow liquid. Flashpoint: 41°C c.c. Explosive limits: 0,3% to 6,3%. Immiscible with water. Irritating to skin, eyes and mucous membranes.
Segregation group:	none

Air transport (IATA)

Hazard:	Flammable liquid
EQ:	E1
Passenger Ltd.Qty.:	Pack.Instr. Y344 - Max. Net Qty/Pkg. 10 L
Passenger:	Pack.Instr. 355 - Max. Net Qty/Pkg. 60 L
Cargo:	Pack.Instr. 366 - Max. Net Qty/Pkg. 220 L
ERG:	3L

14.7 Transport in bulk according to Annex II of MARPOL 73/78 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: 3Y

National regulations - EC member states

Volatile organic compounds (VOC):

85 % by weight = 846 g/L

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Labelling of packaging with <= 125mL content



Signal word:

Warning

Hazard statements:

not applicable

Precautionary statements:

not applicable

15.2 Chemical Safety Assessment

no data available

SECTION 16: Other information

Further information

Reason of change: General revision (Regulation (EU) Nr. 2015/830)

Date of first version: 19/8/2010

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.