



# SAFETY DATA SHEET

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

Revision date: 13/6/2018

Version: 2

Language: en-GB,IE

Date of print: 5/10/2018

## Negative E-Beam Resist Serie SX AR-N 8200 series

Material number SX AR-N 8200

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

#### 1.1 Product identifier

Trade name: Negative E-Beam Resist Serie SX AR-N 8200 series

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

General use: Coating agent, 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: DE-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  
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.  
Eye Irrit. 2; H319 Causes serious eye irritation.  
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.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.



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Precautionary statements: P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection.
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.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

### 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:

No data available

## SECTION 3: Composition / information on ingredients

3.1 Substances: not applicable

### 3.2 Mixtures

Chemical characterisation: Silicone-resin.

Hazardous ingredients:

Ingredient	Designation	Content	Classification
EC No. 203-539-1 CAS 107-98-2	1-Methoxy-2-propanol	>= 80 %	Flam. Liq. 3; H226. Eye Irrit. 2; H319. STOT SE 3; H336.
-	Silsesquioxane	< 20 %	Eye Irrit. 2; H319.

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

## 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

Causes serious eye irritation. 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.



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#### 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:

Water spray jet, foam, extinguishing powder, carbon dioxide.

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.

On heating or in case of fire toxic gases may form.

Furthermore, there may develop: acetic acid, ethylene, 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.

In case of fire and/or explosion do not breathe fumes.

Additional information:

Hazchem-Code: •3Y

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.

## 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).



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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.

## 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.  
Storage temperature: 8 - 12 °C.

Hints on joint storage: Do not store together with bases or amines.  
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:

CAS No.	Designation	Type	Limit value
107-98-2	1-Methoxy-2-propanol	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.

### 8.2 Exposure controls

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



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### 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.
- Hand protection: Protective gloves according to EN 374.  
Glove material: Nitrile rubber, Neoprene.  
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
- 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: clear
- Odour: mild
- Odour threshold: No data available
- pH value: No data available
- Melting point/freezing point: No data available
- Initial boiling point and boiling range: 117 °C
- Flash point/flash point range: 34 °C
- Evaporation rate: No data available
- Flammability: Flammable liquid and vapour.
- Explosion limits: LEL (Lower Explosion Limit): 1.70 Vol-% (1-Methoxy-2-propanol)  
UEL (Upper Explosive Limit): 13.10 Vol-% (1-Methoxy-2-propanol)
- Vapour pressure: No data available
- Vapour density: No data available
- Density: 0.97 g/mL
- Water solubility: insoluble
- Partition coefficient: n-octanol/water: -0.437 log P(o/w) (1-Methoxy-2-propanol)  
Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.
- Auto-ignition temperature: No data available
- Decomposition temperature: Above 180 °C
- Viscosity, kinematic: No data available
- Explosive properties: On contact with air, potentially explosive mixtures may develop.
- Oxidizing characteristics: No data available

### 9.2 Other information

- Additional information: No data available



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### 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.  
Reacts with bases and amines.  
Contact with bases liberates ethylene.

#### 10.4 Conditions to avoid

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

#### 10.5 Incompatible materials

Bases, amines.

#### 10.6 Hazardous decomposition products

Ethylene, acetic acid, organic acids vapours.

Thermal decomposition: Above 180 °C

### 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): 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.

Serious eye damage/irritation: Eye Irrit. 2; H319 = Causes serious eye irritation.

Sensitisation to the respiratory tract: Based on available data, the classification criteria are not met.

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

Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.

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

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

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.

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

Other information: Information about 1-Methoxy-2-propanol:  
LC50 Rat, inhalative (mist): > 6 mg/L/4h



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### Symptoms

In case of inhalation: Irritation to respiratory tract  
In case of ingestion: May be harmful if swallowed.  
After contact with skin: May cause skin irritation.  
After eye contact: Upon direct contact with eyes may cause burning, tearing, redness.

## SECTION 12: Ecological information

### 12.1 Toxicity

Aquatic toxicity: Information about 1-Methoxy-2-propanol:  
Fish toxicity:  
LC50 Pimephales promelas (fathead minnow): 20.8 mg/L/96h  
Daphnia toxicity:  
EC50 Daphnia magna (Big water flea): 23,300 mg/L/48h

### 12.2 Persistence and degradability

Further details: No data available

### 12.3 Bioaccumulative potential

Bioconcentration factor (BCF):  
Information about 1-Methoxy-2-propanol:  
Bioconcentration factor (BCF), fish: < 2

### 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 03 05\* = organic wastes containing hazardous substances  
\* = 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.



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### SECTION 14: Transport information

#### 14.1 UN number

ADR/RID, IMDG, IATA-DGR:

UN 1139

#### 14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

UN 1139, Coating solution

#### 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 1139

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-E

Special provisions:

955

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:

Miscibility with water depends upon the composition.

Segregation group:

none





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### 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
Special provisions:	A3
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: •3Y  
No data available

#### National regulations - EC member states

Volatile organic compounds (VOC):  
> 80 % by weight = 776 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

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:

H226 = Flammable liquid and vapour.  
H319 = Causes serious eye irritation.  
H336 = May cause drowsiness or dizziness.

Reason of change: Changes in section 2: Labelling  
Changes in section 15: Regulatory information

Date of first version: 30/5/2018

### Department issuing data sheet

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



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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.

