



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

1.1 Product identifier

Trade name: Stopper AR 600-60 & Solvent IPA, MOS & Protective Coating SX AR-PC 5000/3.2
REACH registration No.: 01-2119457558-25-xxxx

CAS-Number: 67-63-0
EC-number: 200-661-7
EU index number: 603-117-00-0

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
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)

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 (CLP)



Signal word:

Danger

Hazard statements: H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.



SAFETY DATA SHEET

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

Stopper AR 600-60 & Solvent IPA, MOS & Protective Coating SX AR-PC 5000/3.2

Material number AR 600-60 & IPA, MOS & SX AR-PC 5000/3.2

Revision date: 7/1/2020
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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.
- 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. Prolonged/repetitive skin contact may cause skin defatting or dermatitis.

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: CH₃-CH(OH)CH₃
Isopropanol

CAS-Number: 67-63-0
EC-number: 200-661-7
EU index number: 603-117-00-0
RTECS-Number: NT8050000

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: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention if problems persist.
- Following skin contact: Take off immediately all contaminated clothing and wash it before reuse. Immediately clean with water and soap followed by thorough rinsing. 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. Immediately get medical attention.



4.2 Most important symptoms and effects, both acute and delayed

May cause drowsiness or dizziness.
Causes serious eye irritation.
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.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Water spray jet, extinguishing powder, carbon dioxide.
In case of large fires: alcohol resistant foam or water spray jet.

Extinguishing media which must not be used for safety reasons:

Full water jet

5.2 Special hazards arising from the substance or mixture

Highly 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: •2YE

Move undamaged containers from immediate hazard area if it can be done safely.
Heating will lead to pressure increase: Danger of bursting and explosion.
Cool endangered containers with water jetspray.

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. Keep containers cool with water spray.

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

Do not breathe vapour/aerosol. Avoid contact with the substance. Eliminate all ignition sources if safe to do so. If possible, eliminate leakage. Provide adequate ventilation.

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

Cordon off downwind area at risk and warn inhabitants.

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.

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 vapour/aerosol. Avoid contact with skin and eyes. Wear appropriate protective equipment. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off immediately all contaminated clothing and wash it before reuse. Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation.
Work place should be equipped with a shower and an eye rinsing apparatus. Avoid the formation of aerosol.

Precautions against fire and explosion:

Keep away from sources of ignition - No smoking.
Take action to prevent static discharges.
With air, vapours form potentially explosive mixtures, which are heavier than air. In partially filled containers explosive mixtures may form.
Use only explosion-protected equipment/instruments. Do not weld.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed in a cool, well-ventilated place.
Protect from heat and direct sunlight. Breakable containers may not exceed 5,5 liters.
Maximum fill: 95 %
Storage temperature 10 - 22 °C.
Store containers in upright position.

Hints on joint storage:

Do not store together with combustibile or self-igniting materials or any highly flammable solids.
Keep away from food, drink and animal feedingstuffs.
Avoid contact with strong oxidizing agents, strong acids, Alkalis and alkaline earth metals.

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
Great Britain: WEL-STEL	1250 mg/m ³ ; 500 ppm
Great Britain: WEL-TWA	999 mg/m ³ ; 400 ppm
Ireland: 15 minutes	400 ppm
Ireland: 8 hours	200 ppm

DNEL/DMEL: DNEL long-term, workers, dermal, systemic: 888 mg/kg/d
DNEL long-term, workers, inhalative, systemic: 500 mg/m³
DNEL long-term, consumers, dermal, systemic: 319 mg/kg/d
DNEL long-term, consumers, inhalative, systemic: 89 mg/m³
DNEL long-term, consumers, oral, systemic: 26 mg/kg/d

PNEC: PNEC water (freshwater): 140.9 mg/L
PNEC water (marine water): 140.9 mg/L
PNEC water (intermittent release): 140.9 mg/L
PNEC sediment: 552 mg/kg
PNEC soil: 28 mg/kg
PNEC sewage treatment plant (stp): 2,251 mg/L
PNEC oral: 160 mg/kg food

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.
Recommendation: 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. If the concentration is exceeded, self-contained breathing apparatus must be used.

Hand protection: Protective gloves according to EN 374.

Glove material:

Nitrile rubber - layer thickness: ≥ 0.35 mm
Butyl caoutchouc (butyl rubber) - layer thickness: ≥ 0.5 mm
Fluororubber (Viton) - layer thickness: ≥ 0.4 mm,
Breakthrough time: ≥ 8 h.

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Unsuitable glove material: polyvinyl chloride, natural rubber (Caoutchouc), leather,
Protective gloves made of fabric.

Eye protection: Tightly sealed goggles according to EN 166.

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



General protection and hygiene measures:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not breathe vapour/aerosol. Avoid contact with skin and eyes. Take off immediately all contaminated clothing and wash it before reuse.
Contaminated work clothing should not be allowed out of the workplace. When using do not eat or drink. Wash hands thoroughly after handling.
Work place should be equipped with a shower and an eye rinsing apparatus.
Protect skin by using skin protective cream.

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, clear
Odour:	alcoholic
Odour threshold:	No data available
pH value:	Neutral
Melting point/freezing point:	-89.5 °C
Initial boiling point and boiling range:	82 °C
Flash point/flash point range:	13 °C
Evaporation rate:	No data available
Flammability:	Highly flammable liquid and vapour.
Explosion limits:	LEL (Lower Explosion Limit): 2.00 Vol-% UEL (Upper Explosive Limit): 12.00 Vol-%
Vapour pressure:	at 20 °C: 48 hPa
Vapour density:	No data available
Density:	at 20 °C: 0.785 g/mL
Water solubility:	at 20 °C: 1000 g/L (Completely miscible)
Partition coefficient: n-octanol/water:	-0.16 log P(o/w) Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.
Auto-ignition temperature:	not determined
Decomposition temperature:	No data available
Viscosity, dynamic:	at 20 °C: 2.43 mPa*s
Explosive properties:	Product is not explosive. Vapours can form explosive mixtures with air.
Oxidizing characteristics:	Not oxidising.

9.2 Other information

Ignition temperature:	425 °C
Refraction index:	at 20 °C: 1.376 - 1.378
Molecular weight	60.11 g/mol
Additional information:	Relative vapour density at 20 °C (air=1): 2 Evaporation rate: 11 (ether = 1, DIN 53170) Saturation concentration at 20 °C 106,000 mg/m ³



SECTION 10: Stability and reactivity

10.1 Reactivity

Highly 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

Exothermic reactions with strong acids.
Liquid evaporates quickly.
Heating will lead to pressure increase: Danger of bursting and explosion.
Reacts at room temperature with alkali, less so with alkaline earth metals (with formation of hydrogen), at higher temperatures a measurably stronger reaction occurs.

10.4 Conditions to avoid

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

10.5 Incompatible materials

Strong acid, strong oxidizing agents, alkalis, alkali metals, alkaline earth metals, pyrophoric solids.

10.6 Hazardous decomposition products

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

Thermal decomposition: No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity: LD50 Rat, oral: 5840 mg/kg (OECD 401)
LD50 Rabbit, dermal: 13400 mg/kg bw
LC50 Rat, inhalative: 30 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.
- 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.
- Specific symptoms in animal studies, guinea pig: not sensitising (OECD 406).
- Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.
- Gene-mutations mammalian cells (in-vitro, hamster): negative. (OECD 476)
- Bacterial mutagenicity: (in-vitro, Ames test): negative. (OECD 471)
- Micronucleus test: (in-vivo, Mouse): negative. (OECD 474)
- 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: Based on available data, the classification criteria are not met.
- 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.
In severe cases, pneumonia or a pulmonary edema may develop. Aspiration hazard: in case of swallowing or vomiting danger of penetration into the lungs.

Symptoms

After contact with skin:
Prolonged/repetitive skin contact may cause skin defatting or dermatitis.
After eye contact: Upon direct contact with eyes may cause burning, tearing, redness.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

- Toxic effect on fishes and plankton.
- Algae toxicity:
EC50 Green algae: > 100 mg/L/72h.
- Bacterial toxicity:
EC50: >100 mg/L
EC5 Pseudomonas putida : 1,050 mg/L/16h.
- Daphnia toxicity:
EC50 Daphnia magna (Big water flea): 10,000 mg/L/24h. (OECD 202)
- Fish toxicity:
LC50 Lepomis macrochirus (bluegill): 1,400 mg/L/96h.
LC50 Leuciscus idus test: 8,970 mg/L/48h.
LC50 Pimephales promelas (fathead minnow): 9,640 mg/L/96h. (OECD 203)



12.2 Persistence and degradability

Further details: Product is readily biodegradable.

Oxygen demand: BOD/COD: 62 %

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:

-0.16 log P(o/w)

Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.

12.4 Mobility in soil

No data available

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* = other organic solvents, washing liquids and mother liquors
* = Evidence for disposal must be provided.

Recommendation: Do not dispose of with household waste.
Dispose of waste according to applicable legislation.
Do not empty into drains.

Contaminated packaging

Waste key number: 15 01 02 = Plastic packaging
Recommendation: Handle empty containers with care. Incineration may cause explosion.
Dispose of waste according to applicable legislation.

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA-DGR:
UN 1219

14.2 UN proper shipping name

ADR/RID, IMDG: UN 1219, ISOPROPANOL (ISOPROPYL ALCOHOL)
IATA-DGR: UN 1219, ISOPROPANOL



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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:
II

14.5 Environmental hazards

Marine pollutant: no

14.6 Special precautions for user

Land transport (ADR/RID)

Warning board: ADR/RID: Kemmler-number 33, UN number UN 1219
Hazard label: 3
Special provisions: 601
Limited quantities: 1 L
EQ: E2
Contaminated packaging - Instructions: P001 IBC02 R001
Special provisions for packing together: MP19
Portable tanks - Instructions: T4
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: 1 L
Excepted quantities: E2
Contaminated packaging - Instructions: P001
Contaminated packaging - Provisions: -
IBC - Instructions: IBC02
IBC - Provisions: -
Tank instructions - IMO: -
Tank instructions - UN: T4
Tank instructions - Provisions: TP1
Stowage and handling: Category B.
Properties and observations: Colourless, mobile liquid. Flashpoint: 12°C c.c. Explosive limits: 2% to 12%. Miscible with water.
Segregation group: none

Air transport (IATA)

Hazard label: Flamm. liquid
Excepted Quantity Code: E2
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y341 - Max. Net Qty/Pkg. 1 L
Passenger and Cargo Aircraft: Pack.Instr. 353 - Max. Net Qty/Pkg. 5 L
Cargo Aircraft only: Pack.Instr. 364 - Max. Net Qty/Pkg. 60 L
Special provisions: A180
Emergency Response Guide-Code (ERG): 3L



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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: •2YE
No data available

National regulations - EC member states

Volatile organic compounds (VOC):
100 % by weight = 780 g/L

Labelling of packaging with <= 125mL content



Signal word: **Danger**

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 substance a chemical safety assessment has not been carried out.



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SECTION 16: Other information

Further information

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
OEL: Occupational Exposure Limit Value
AS/NZS: Australian Standards/New Zealand Standards
BOD: Biochemical oxygen demand
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
CLP: Classification, Labelling and Packaging
COD: Chemical Oxygen Demand
DMEL: Derived minimal effect level
DNEL: Derived no-effect level
EC50: Effective Concentration 50%
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
LC50: Median lethal concentration
LD50: Lethal dose 50%
LEL: Lower Explosion Limit
log P(o/w): Partition coefficient: octanol/water
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 SE: Specific target organ toxicity - single exposure
TLV: Threshold Limit Value
UN: United Nations
vPvB: Very persistent and very bioaccumulative
WEL: Workplace Exposure Limit

Reason of change: Changes in section 14: General revision
Date of first version: 19/8/2010

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.