

Trade name / Substance name: Argen Lab Anti-Mold Spray

SAFETY DATA SHEET

(*) concerns only chemical notification

(**) either 3.1 or 3.2 must be filled

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier****Trade name / Substance name**

Argen Lab Anti-Mold Spray

Company product code

AL13

REACH Registration number

Not applicable, because the product is a mixture.

1.2 Relevant identified uses of the substance or mixture and uses advised against**The uses of the chemical**

Removal and prevention of molds.

Classification of economic activities (NACE) (*)**Use categories (UC62) (*)****The chemical can be used by the general public (*)****The chemical is used by the general public only (*)****1.3 Details of the supplier of the Safety Data Sheet****Supplier**

Argen Lab Oy

Street address

Pallotie 2

Postcode and post office

FI-33470 Ylöjärvi, Finland

Post-office box**Postcode and post office****Telephone number**

+358 3 255 4441

Telefax

+358 9 4159 2320

E-mail address

info@argenlabglobal.com

Finnish Business ID (Y code) (*)

FI25368581

1.4 Emergency telephone number

| | |
|---------|---------------------------------------------------------------------------|
| Denmark | National emergency number: 82 12 12 12 (Giftlinjen, Bispebjerg Hospital). |
| Taiwan | National emergency number: 119 |

SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture**

F+; R12

2.2 Label elements

Active ingredient: Silver chloride (<0,1 %)

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C.

Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition – no smoking. Keep out of the reach of children.

According to 1999/45/EC

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| | |
|------------------|--------------------------------------------------|
| F+ | Extremely flammable |
| R phrases | |
| R12 | Extremely flammable |
| S phrases | |
| S2 | Keep out of the reach of children |
| S13 | Keep away from food, drink and animal foodstuffs |
| S16 | Keep away from sources of ignition - No smoking |
| S23 | Do not breathe spray |
| S51 | Use only in well-ventilated areas |

2.3 Other hazards

None.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**3.1 Substances (**)****3.2 Mixtures (**)**

| Substance name | CAS- or EC-number | REACH Registration No. | Concentration | Classification |
|------------------------------------------|-------------------|-------------------------|---------------|----------------|
| Ethanol | 64-17-5 | 01-2119457610-43 | 60-80 % | F;R11 |
| Propane | 74-98-6 | Not available. | 10-20 % | F+; R12 |
| Butane (contains <0.1% of 1,3.butadiene) | 106-97-8 | Not available. | 10-20 % | F+; R12 |
| Silver(I) chloride | 7783-90-6 | Biocide, not applicable | <0,1% | N;R50/53 |

SECTION 4: FIRST AID MEASURES**Inhalation**

If aerosol spray is inhaled, seek medical attention if necessary.

Eyes

Flush eye(s) with water.

Skin

Flush with water. If irritation persists, seek medical attention.

Ingestion

If aerosol spray have been ingested, seek medical attention immediately.

SECTION 5: FIREFIGHTING MEASURES**5.1 Extinguishing media**

Alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture

Water spray.

5.3 Advice for firefighters

In the event of fire, there is a possibility of explosion. Staff must be evacuated immediately to a safe distance from fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Prevent access to unauthorised personnel. Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind.

6.2 Environmental precautions

Prevent entry into drains and sewers, basements or confined areas in large quantities.

6.3 Methods and material for containment and cleaning up

None.

6.4 Reference to other sections

Use individual protective equipment (see chapter 8).

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SECTION 7: HANDLING AND STORAGE**7.1 Precautions for safe handling**

Use only in well-ventilated areas. Avoid heat, flames, sparks and other sources of ignition – no smoking. Do not store near flammable substances. Take precautions against static electricity discharges. Increase ventilation to area to prevent formation of explosive air/gas mixtures. Do not pierce or burn aerosols, even after use.

7.2 Conditions for safe storage, including any incompatibilities

Pressurized container. Do not store near flammable substances. Protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from children. Protect from freezing.

7.3 Specific end use(s)

None.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters****Exposure limit values**

| | |
|-----------------------------|-------------------------------------------------------------------------------------|
| Ethanol | 8 h = 1000 ppm; 1900 mg/m ³ 15 min = 1300 ppm; 2500 mg/m ³ |
| Butane | 8 h = 800 ppm; 1900 mg/m ³ 15 min = 1000 ppm; 2350 mg/m ³ |
| Propane | 8 h = 800 ppm; 1500 mg/m ³ 15 min = 1100 ppm; 2000 mg/m ³ |
| Silver(I) chloride (powder) | 8 h = 0,1 mg/m ³ |

Other limit values

Not available.

DNEL

Not available.

PNEC

Not available.

8.2 Exposure controls**Appropriate engineering controls**

Handle in accordance with good hygiene and safety practices.

Eye / face protection

Avoid contact with skin and eyes. Wear safety glasses or goggles if eye contact is possible.

Skin protection

Avoid contact with skin. Wear safety clothes when working with large quantities.

Hand protection

Wear impervious gloves when working with large quantities.

Respiratory protection

Use with adequate ventilation. Do not breathe aerosol spray. It is not expected that exposure limits are exceeded in normal use.

Thermal hazards

This product is extremely flammable.

Environmental exposure controls

Prevent entry into drains and sewers, basements or confined areas in large quantities.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on physical and chemical properties**

| | |
|------------------------|-----------------------------|
| Appearance | Colourless liquid, aerosol. |
| Odour | Alcohol. |
| Odour threshold | Not available. |

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| | |
|-----------------------------------------------------|----------------|
| pH | Not available. |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | Not available. |
| Flash point | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or explosive limits | Not available. |
| Vapour pressure | Not available. |
| Vapour density | Not available. |
| Relative density | Not available. |
| Solubility(ies) | Water soluble. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2 Other information

None.

SECTION 10: STABILITY AND REACTIVITY**10.1 Reactivity**

Not available.

10.2 Chemical stability

Stable under normal conditions of use and storage.

10.3 Possibility of hazardous reactions

Not available.

10.4 Conditions to avoid

Pressure container. Keep away from heat, spark, flames and all other sources of ignition. Protect from sunlight and do not expose to temperatures exceeding 50 °C.

10.5 Incompatible materials

Not available.

10.3 Hazardous decomposition products

Not available.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects****Acute toxicity**

Ethanol LD50 = 10 470 mg/kg (skin, rat)
 Propane/butane LC > 20 mg/l (inhalation)
 Silver(I) chloride (powder) LD50 > 5110 mg/kg (oral, rat)

Skin corrosion/irritation

Product is not corrosive to skin. Skin irritation has not been reported.

Serious eye damage/irritation

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Irritating to eyes.

Respiratory or skin sensitisation

Large quantities of vapours may cause respiratory irritation. May dry skin.

Germ cell mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

STOT-single exposure

Not available.

STOT-repeated exposure

Not available.

Aspiration hazard

Not available.

Other information

Ingestion may cause gastrointestinal pain, nausea, vomiting and diarrhea, and central nervous system (brain) depression similar to alcohol intoxication.

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**

| | |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Ethanol | LC50/96h/fish = 11 200 mg/l EC50/48h/invertebrates, fresh water = 5 012 mg/l EC50/48h/invertebrates, sea water = 857 mg/l |
| Propane/butane | Not available. |
| Silver(I) chloride (powder) | LC50/96h/fish (Pimephales promelas) = 1,93 mg/l |

12.2 Persistence and degradability

| | |
|-----------------------------|------------------------------------------------------|
| Ethanol | Readily biodegradable. |
| Propane | Oxidises rapidly by photo-chemical reactions in air. |
| Butane | Oxidises rapidly by photo-chemical reactions in air. |
| Silver(I) chloride (powder) | Not available. |

12.3 Bioaccumulative potential

| | |
|-----------------------------|---------------------------------------|
| Ethanol | log Pow = 0,32; no bioaccumulation. |
| Propane | Does not bioaccumulate significantly. |
| Butane | Does not bioaccumulate significantly. |
| Silver(I) chloride (powder) | Not available. |

12.4 Mobility in soil

Product is readily water soluble and may move with surface and table water. Product does not readily absorb into sediments or soils. Propellant (propane/butane) evaporates quickly.

12.5 Results of PBT and vPvB assessment

Not known.

12.6 Other adverse effects

Not known.

SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Dispose of in accordance with federal, state, and local regulations.

SECTION 14: TRANSPORT INFORMATION

| | Land transport | Sea transport | Air transport |
|-----------------------|----------------|---------------|---------------|
| 14.1 UN number | UN1950 | UN1950 | UN1950 |

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| | | | |
|----------------------------------------|------------|----------------------|------------|
| 14.2 UN proper shipping name | Aerosols | Aerosols | Aerosols |
| 14.3 Transport hazard class(es) | 2 | 2 | 2 |
| 14.4 Packing group | - | - | - |
| 14.5 Environmental hazards | Not known. | Marine pollutant: No | Not known. |

| | |
|------------------------------------------|------------|
| 14.6 Special precautions for user | Not known. |
|------------------------------------------|------------|

| | |
|-------------------------------------------------------------------------------------|------------|
| 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not known. |
|-------------------------------------------------------------------------------------|------------|

SECTION 15: REGULATORY INFORMATION

| | |
|------------------------------------------------------------------------------------------------------------|----------------|
| 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture | Not available. |
|------------------------------------------------------------------------------------------------------------|----------------|

| | |
|----------------------------------------|---------------------------------|
| 15.2 Chemical safety assessment | Not available for this mixture. |
|----------------------------------------|---------------------------------|

SECTION 16: OTHER INFORMATION

Indication of changes

Edition 1.0 of this safety data sheet.

Abbreviations and acronyms

None.

Key literature references and sources for data

Publicly available toxicity information. Safety data sheets of the raw materials of the mixture.

Used method in evaluating classification

Classified and labelled according to directive 1999/45/EC.

List of relevant R-and S-phrases or/and safety and precautionary statements

Relevant R phrases

R12 Extremely flammable

Relevant S phrases

S2 Keep out of the reach of children

S13 Keep away from food, drink and animal foodstuffs

S16 Keep away from sources of ignition - No smoking

S23 Do not breathe spray

S51 Use only in well-ventilated areas

Training advice for workers

Information not available.