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 Shoe Deodorant AE	
	Company product code	
	AL18	
	REACH Registration number	
	Not applicable, because the product is a mixtur	e.
1.2	Relevant identified uses of the substance or	mixture and uses advised against
	The uses of the chemical	For shoe care purposes and to remove odor- causing bacteria and fungi.
	Classification of economic activities (NACE)	(*)
	Use categories (UC62) (*)	
	The chemical can be used by the general put	blic (*)

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

SECT	TON 2: HAZARDS IDENTIFICATION	
2.1	Classification of the substance or mixture	
	F+: R12	

-+; 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 F+ R phrases	1999/45/EC Extremely flammable
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-	REACH Registration	Concentration	Classification
	number	No.		
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%	106-97-8	Not available.	10-20 %	F+; R12
of 1,3.butadiene)				
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).

SECTIO	ON 7: HANDLING AND STORAG	E		
7.1	Precautions for safe handling			
7.0	smoking. Do not store near fla discharges. Increase ventilation pierce or burn aerosols, even	immable substances. Take pre on to area to prevent formation after use.	and other sources of ignition – no cautions against static electricity of explosive air/gas mixtures. Do not	
7.2	Conditions for safe storage,			
	expose to temperatures excee	eding 50 °C. Do not pierce or b	ces. Protect from sunlight and do not urn, even after use. Do not spray on n children. Protect from freezing.	
7.3	Specific end use(s)			
	None.			
SECTIO	N 8: EXPOSURE CONTROLS/PE	ERSONAL PROTECTION		
8.1	Control parameters			
	Exposure limit values			
	Ethanol	8 h = 1000 ppm; 1900 mg/r	m³	
		15 min = 1300 ppm; 2500 r	ng/m³	
	Butane	8 h = 800 ppm; 1900 mg/m		
		15 min = 1000 ppm; 2350 r		
	Propane	8 h = 800 ppm; 1500 mg/m		
		15 min = 1100 ppm; 2000 r	ng/m³	
	Silver(I) chloride (powder)	8 h = 0,1 mg/m³		
	Other limit values			
	Not available. DNEL			
	Not available.			
	PNEC			
	Not available.			
8.2	Exposure controls			
0.2		ntrolo		
	Appropriate engineering co			
	Handle in accordance with good hygiene and safety practices. Eye / face protection		S.	
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 workig with large quatities. Hand protection		ggles if eye contact is possible.		
		h large quatities.		
	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			
			It is not expected that exposure	
	limits are exceeded in normal use.			
	Thermal hazards			
	This product is extremely flammable. Environmental exposure controls			
		sewers, basements or confined	d areas in large quantities.	
SECT	ION 9: PHYSICAL AND CHEMIC	AL PROPERTIES		
9.1	Information on physical and			
	Appearance		Colourless liquid, aerosol.	
	Odour		Alcohol.	
L				

Odour threshold	Not available.
рН	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
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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 (pow	der) 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

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.

SECTIO	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	.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.					
SECTIO	N 13: DISPOSAL CONSIDERA	ATIONS				
13.1	Waste treatment methods					

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
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	-	Marine pollutant: No -	

14.6 Special precautions for user Not known. 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.