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SECTION 1: IDENTIFICATION

1.1 Product identifier: Do odświeżania klimatyzacji i nawiewów - AIR CONDITIONING AND VENTS CLEANER

Other means of identification:

Non-applicable

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Cleaner

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Initial supplier identifier:

AUTOLAND Sp. Jawna J.Kisielewski & J. .Moranski

Ogrodowa 37

00-873 Warszawa - Poland Phone.: 0048-32-47 22 531 autoland_hse@autoland.pl http://autoland.pl

Canada supplier identifier:

1.4 Emergency phone number:

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture:

WHMIS 2015:

Classification of this product has been carried out in accordance with Part 2 of Hazardous Products Regulations (SOR/2015-17)

Aerosol 1: Flammable aerosols, Category 1, H222

Press. Gas: Pressure Gases, H280

2.2 Label elements:

WHMIS 2015:

Danger





Hazard statements:

Aerosol 1: H222 - Extremely flammable aerosol.

Press. Gas: H280 - Contains gas under pressure; may explode if heated.

Precautionary statements:

P101: If medical advice is needed, have product container or label at hand.

P102: Keep out of reach of children.

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

P211: Do not spray on an open flame or other ignition source.

P251: Do not pierce or burn, even after use.

P501: Dispose of contents and / or their container according to the separated collection system used in your municipality.

2.3 Health and physical hazards not otherwise classified (HHNOC - PHNOC):

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

Non-applicable

3.2 Mixtures:



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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Chemical description: Aerosol

Components:

In accordance with Schedule I of the Hazardous Products Regulations (SOR/2015-17), the product contains:

	Identification	Chemical name	Concentration
CAS:	64-17-5	ethanol	30 - <60 %
CAS:	106-97-8	Butane	30 - <60 %
CAS:	74-98-6	Propane	10 - <30 %

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Other information:

Identification	Specific concentration limit
ethanol CAS: 64-17-5	% (w/w) >=50: Eye Irrit. 2 - H319

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of modifications on the skin (stinging, redness, rashes, blisters,...), seek medical advice with this Safety data Sheet

By eve contact

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

In case of consumption, seek immediate medical assistance showing the SDS of this product.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Suitable extinguishing media:

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO2).

Unsuitable extinguishing media:

IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Safety data sheet According to WHMIS 2015



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SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: 0 °C Maximum Temp.: 50 °C

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.



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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace:

British Columbia - Occupational Health and Safety Regulation section 5.48:

Identification	Occupational exposure limits		
ethanol	TLV-TWA		
CAS: 64-17-5	TLV-STEL		
Butane	TLV-TWA		
CAS: 106-97-8	TLV-STEL	1000 ppm	

ALBERTA - Occupational Health and Safety Code:

Identification	Occupa	Occupational exposure limits			
ethanol	8-hour	1000 ppm	1880 mg/m ³		
CAS: 64-17-5	15-minute				
Butane	8-hour	1000 ppm			
CAS: 106-97-8	15-minute				
Propane	8-hour	1000 ppm			
CAS: 74-98-6	15-minute				

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

Non-applicable

D.- Ocular and facial protection

Non-applicable

E.- Bodily protection

Non-applicable

F.- Additional emergency measures

It is not necessary to take additional emergency measures.

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatile organic compounds (VOC) according to Canadian Environmental Protection Act, 1999:

Volatile organic compounds: 99.2 % weight V.O.C. density at 20 °C: Non-applicable

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:

Appearance:

Color:

Odor:

Pleasant

*Not relevant due to the nature of the product, not providing information property of its hazards.



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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Odour threshold: Non-applicable *

Volatility:

Boiling point at atmospheric pressure: -42 - 297 °C (Propellant)

Vapour pressure at 20 °C: Non-applicable *

Vapour pressure at 50 °C: <300000 Pa (300 kPa)

Evaporation rate at 20 °C: Non-applicable *

Product description:

Density at 20 °C: Non-applicable * Relative density at 20 °C: Non-applicable * Dynamic viscosity at 20 °C: Non-applicable * Kinematic viscosity at 20 °C: Non-applicable * Kinematic viscosity at 40 °C: Non-applicable * Concentration: Non-applicable * pH: Non-applicable * Non-applicable * Vapour density at 20 °C: Partition coefficient n-octanol/water 20 °C: Non-applicable *

Solubility in water at 20 °C:

Solubility properties:

Decomposition temperature:

Melting point/freezing point:

Recipient pressure:

Explosive properties:

Non-applicable *

Non-applicable *

Non-applicable *

Non-applicable *

Non-applicable *

Non-applicable *

Flammability:

Flash Point: -104 °C (Propellant)
Heat of combustion: Non-applicable *
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 410 °C (Propellant)
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:

Lower explosive limit:

Upper explosive limit:

Non-applicable *

Non-applicable *

9.2 Other information:

Surface tension at 20 °C:

Refraction index:

Non-applicable *

Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:



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SECTION 10: STABILITY AND REACTIVITY (continued)

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Risk of combustion	Avoid direct impact	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

- A- Ingestion (acute effect):
 - Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
 - Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- B- Inhalation (acute effect):
 - Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
 - Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- C- Contact with the skin and the eyes (acute effect):
 - Contact with the skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for skin contact. For more information see section 3.
 - Contact with the eyes: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.
- D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
 - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.

 IARC: ethanol (1)
 - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
 - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- E- Sensitizing effects:
 - Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
 - Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- F- Specific target organ toxicity (STOT) single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:



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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification		Acu	Acute toxicity	
Propane		LD50 oral	>5000 mg/kg	
CAS: 74-98-6		LD50 dermal	>5000 mg/kg	
		LC50 inhalation	>5 mg/L (4 h)	
Butane		LD50 oral	>5000 mg/kg	
CAS: 106-97-8		LD50 dermal	>5000 mg/kg	
		LC50 inhalation	658 mg/L (4 h)	Rat
ethanol		LD50 oral	6200 mg/kg	Rat
CAS: 64-17-5		LD50 dermal	20000 mg/kg	Rabbit
		LC50 inhalation	124.7 mg/L (4 h)	Rat

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

Identification	Acute toxicity		Species	Genus
ethanol	LC50	11000 mg/L (96 h)	Alburnus alburnus	Fish
CAS: 64-17-5	EC50	9268 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	1450 mg/L (192 h)	Microcystis aeruginosa	Algae

12.2 Persistence and degradability:

Identification	Degra	dability	Biodegradability	
ethanol	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 64-17-5	COD	Non-applicable	Period	14 days
	BOD5/COD	Non-applicable	% Biodegradable	89 %

12.3 Bioaccumulative potential:

Identification		Bioaccumulation potential		
ethanol		BCF	3	
CAS: 64-17-5		Pow Log	-0.31	
		Potential	Low	
Butane		BCF	33	
CAS: 106-97-8		Pow Log	2.89	
		Potential	Moderate	
Propane		BCF	13	
CAS: 74-98-6		Pow Log	2.86	
		Potential	Low	

12.4 Mobility in soil:

Identification	Absorption	on/desorption	Volatility	
ethanol	Koc	1	Henry	4.61E-1 Pa·m³/mol
CAS: 64-17-5	Conclusion	Very High	Dry soil	Yes
	Surface tension	2.339E-2 N/m (25 °C)	Moist soil	Yes



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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Absorption/desorption		Volatility	
Butane	Koc	900	Henry	96258.75 Pa·m³/mol
CAS: 106-97-8	Conclusion	Low	Dry soil	Yes
	Surface tension	1.187E-2 N/m (25 °C)	Moist soil	Yes
Propane	Koc	460	Henry	71636.78 Pa·m³/mol
CAS: 74-98-6	Conclusion	Moderate	Dry soil	Yes
	Surface tension	7.02E-3 N/m (25 °C)	Moist soil	Yes

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

Canadian Environmental Protection Act, 1999

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to Transportation of Dangerous Goods Regulations including Amendment SOR/2017-100



14.1 UN number: UN1950

14.2 United Nations proper AEROSOLS, flammable

shipping name:

14.3 Transport hazard class(es): 2

Labels: 2.1 **14.4 Packing group:** N/A **14.5 Environmental hazard:** No

14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises

Physico-Chemical properties: see section 9

14.7 Transport in bulk (according Non-applicable to Annex II of MARPOL 73/78 and the IBC Code):

Transport of dangerous goods by sea:

With regard to IMDG 39-18:



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SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN1950

14.2 United Nations proper AEROSOLS, flammable

shipping name:

14.3 Transport hazard class(es): Labels: 2.1

14.4 Packing group: N/A 14.5 Marine pollutant: No

14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises

Special regulations: 63, 959, 190, 277, 327, 344

EmS Codes: F-D, S-U Physico-Chemical properties: see section 9

Limited quantities: 1 L

Segregation group: Non-applicable 14.7 Transport in bulk (according Non-applicable

to Annex II of MARPOL 73/78 and the IBC Code):

Transport of dangerous goods by air:

With regard to IATA/ICAO 2021:



14.1 UN number: UN1950

14.2 United Nations proper AEROSOLS, flammable

shipping name:

14.3 Transport hazard class(es): 2 Labels: 2.1

14.4 Packing group: N/A 14.5 Environmental hazard: Nο

14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises

Physico-Chemical properties: see section 9 14.7 Transport in bulk (according Non-applicable

to Annex II of MARPOL

73/78 and the IBC Code):

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

Domestic Substances List (DSL): ethanol; Butane; Propane Non-Domestic Substances List (NDSL): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

Canadian Environmental Protection Act, 1999

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

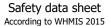
This safety data sheet has been designed in accordance with Part 4 and Schedule I of the Hazardous Products Regulations

Texts of the legislative phrases mentioned in section 2:

H280: Contains gas under pressure; may explode if heated.

H222: Extremely flammable aerosol.

Advice related to training:





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SECTION 16: OTHER INFORMATION (continued)

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

http://whmis.org/

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor LD50: Lethal Dose 50 CL50: Lethal Concentration 50 EC50: Effective concentration 50

Log-POW: Octanol-water partition coefficient Koc: Partition coefficient of organic carbon

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.