

**VEHICLE A/C CLEANER**


Date of compilation: 2021-06-16

Version: 1

**SECTION 1: IDENTIFICATION**

- 1.1 Product identifier:** VEHICLE A/C 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
- 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  
Eye Irrit. 2: Eye irritation, Category 2, H319  
Press. Gas: Pressure Gases, H280
- 2.2 Label elements:**  
**WHMIS 2015:**  
Danger
- 
- Hazard statements:**  
Aerosol 1: H222 - Extremely flammable aerosol.  
Eye Irrit. 2: H319 - Causes serious eye irritation.  
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:**  
**Chemical description:** Aerosol  
**Components:**  
In accordance with Schedule I of the Hazardous Products Regulations (SOR/2015-17), the product contains:

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### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

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 %
CAS: 67-63-0	propan-2-ol	5 - <10 %

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 is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms 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 eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. 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 (CO<sub>2</sub>).

##### 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:

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,...)

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**SECTION 5: FIRE-FIGHTING MEASURES (continued)****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.

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

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### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Appearance:	Fluid
Color:	Colourless
Odor:	Pleasant
Odour threshold:	Non-applicable *
<b>Volatility:</b>	
Boiling point at atmospheric pressure:	-42 - 365 °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 *
<b>Product description:</b>	
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 *
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	
Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Recipient pressure:	Non-applicable *
Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
<b>Flammability:</b>	
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 *
<b>Explosive:</b>	
Lower explosive limit:	Non-applicable *
Upper explosive limit:	Non-applicable *
<b>9.2 Other information:</b>	
Surface tension at 20 °C:	Non-applicable *
Refraction index:	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.

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**SECTION 10: STABILITY AND REACTIVITY (continued)**

**10.2 Chemical stability:**

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

**10.3 Possibility of hazardous reactions:**

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 (CO<sub>2</sub>), 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: Produces eye damage after contact.

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: propan-2-ol (3); ethanol (1); d-limonene (3)
- 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:

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**SECTION 11: TOXICOLOGICAL INFORMATION (continued)**

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

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

- 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	Acute toxicity		Genus
propan-2-ol CAS: 67-63-0	LD50 oral	5280 mg/kg	Rat
	LD50 dermal	12800 mg/kg	Rat
	LC50 inhalation	72.6 mg/L (4 h)	Rat
ethanol CAS: 64-17-5	LD50 oral	6200 mg/kg	Rat
	LD50 dermal	20000 mg/kg	Rabbit
	LC50 inhalation	124.7 mg/L (4 h)	Rat
Propane CAS: 74-98-6	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>5 mg/L (4 h)	
Butane CAS: 106-97-8	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	658 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 CAS: 64-17-5	LC50	11000 mg/L (96 h)	Alburnus alburnus	Fish
	EC50	9268 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	1450 mg/L (192 h)	Microcystis aeruginosa	Algae
propan-2-ol CAS: 67-63-0	LC50	9640 mg/L (96 h)	Pimephales promelas	Fish
	EC50	13299 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	1000 mg/L (72 h)	Scenedesmus subspicatus	Algae

**12.2 Persistence and degradability:**

Identification	Degradability		Biodegradability	
ethanol CAS: 64-17-5	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	14 days
	BOD5/COD	Non-applicable	% Biodegradable	89 %
propan-2-ol CAS: 67-63-0	BOD5	1.19 g O2/g	Concentration	100 mg/L
	COD	2.23 g O2/g	Period	14 days
	BOD5/COD	0.53	% Biodegradable	86 %

**12.3 Bioaccumulative potential:**

Identification	Bioaccumulation potential	
ethanol CAS: 64-17-5	BCF	3
	Pow Log	-0.31
	Potential	Low

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### SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Bioaccumulation potential	
Butane CAS: 106-97-8	BCF	33
	Pow Log	2.89
	Potential	Moderate
Propane CAS: 74-98-6	BCF	13
	Pow Log	2.86
	Potential	Low
propan-2-ol CAS: 67-63-0	BCF	3
	Pow Log	0.05
	Potential	Low

#### 12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
ethanol CAS: 64-17-5	Koc	1	Henry	4.61E-1 Pa·m <sup>3</sup> /mol
	Conclusion	Very High	Dry soil	Yes
	Surface tension	2.339E-2 N/m (25 °C)	Moist soil	Yes
Butane CAS: 106-97-8	Koc	900	Henry	96258.75 Pa·m <sup>3</sup> /mol
	Conclusion	Low	Dry soil	Yes
	Surface tension	1.187E-2 N/m (25 °C)	Moist soil	Yes
Propane CAS: 74-98-6	Koc	460	Henry	71636.78 Pa·m <sup>3</sup> /mol
	Conclusion	Moderate	Dry soil	Yes
	Surface tension	7.02E-3 N/m (25 °C)	Moist soil	Yes
propan-2-ol CAS: 67-63-0	Koc	1.5	Henry	8.207E-1 Pa·m <sup>3</sup> /mol
	Conclusion	Very High	Dry soil	Yes
	Surface tension	2.24E-2 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 recommend 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



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**SECTION 14: TRANSPORT INFORMATION (continued)**



- 14.1 UN number:** UN1950
- 14.2 United Nations proper shipping name:** AEROSOLS, flammable
- 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 to Annex II of MARPOL 73/78 and the IBC Code):** Non-applicable

**Transport of dangerous goods by sea:**

With regard to IMDG 39-18:



- 14.1 UN number:** UN1950
- 14.2 United Nations proper shipping name:** AEROSOLS, flammable
- 14.3 Transport hazard class(es):** 2  
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 to Annex II of MARPOL 73/78 and the IBC Code):** Non-applicable

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2021:



- 14.1 UN number:** UN1950
- 14.2 United Nations proper shipping name:** AEROSOLS, flammable
- 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 to Annex II of MARPOL 73/78 and the IBC Code):** Non-applicable

**SECTION 15: REGULATORY INFORMATION**

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

Domestic Substances List (DSL): ethanol ; Butane ; Propane ; propan-2-ol  
Non-Domestic Substances List (NDSL): Non-applicable

**Specific provisions in terms of protecting people or the environment:**

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**SECTION 15: REGULATORY INFORMATION (continued)**

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 (SOR/2015-17)

**Texts of the legislative phrases mentioned in section 2:**

H319: Causes serious eye irritation.

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

H222: Extremely flammable aerosol.

**Advice related to training:**

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.

END OF SAFETY DATA SHEET