

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 26.11.2020

Revision: 26.11.2020

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

- **1.1 Product identifier**
- **Trade name:** ARDAP Green-Spray
- **UFI:** 5XC1-70VH-500A-K4H0
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Biocide - PT 18
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Ardap Care GmbH
Franzstr. 95
D-46395 Bocholt
Tel.: +49 (0) 2871 -2487-0 | Fax: -66
Internet: www.ardapcare.com
E-mail: info@ardapcare.com
- **Further information obtainable from:**
Sales Department (via central phone number)
Tel.: +49 (0) 2871 -2487-0
- **1.4 Emergency telephone number:**
Central phone number
Tel.: +49 (0) 2871 -2487-0

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H336 May cause drowsiness or dizziness.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02 GHS07

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
Propan-2-ol
- **Hazard statements**
H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
- **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.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear eye protection.

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- P304+P340 *IF INHALED: Remove person to fresh air and keep comfortable for breathing.*
- P305+P351+P338 *IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
- P312 *Call a POISON CENTER/doctor if you feel unwell.*
- P337+P313 *If eye irritation persists: Get medical advice/attention.*
- P403+P233 *Store in a well-ventilated place. Keep container tightly closed.*
- P405 *Store locked up.*
- P410+P412 *Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.*
- P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **Additional information:**

Contains biocidal products: Diatomaceous earth (Silica-Amorphous)

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**

· **Description:**

Mixture of substances listed below with nonhazardous compounds or compounds with no duty to declare.
Organic solvent, propellant; 67,6 g/kg (=6,76%) Siliciumdioxide (Siliciumdioxid/Kieselgur)

· **Dangerous components:**

CAS: 106-97-8 EINECS: 203-448-7 Reg.nr.: 01-2119474691-32	butane, pure ⚠ Flam. Gas 1A, H220; Press. Gas (Comp.), H280	25-50%
CAS: 67-63-0 EINECS: 200-661-7 Reg.nr.: 01-2119457558-25	Propan-2-ol ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	25-50%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21	propane ⚠ Flam. Gas 1A, H220; Press. Gas (Liq.), H280	10-25%
CAS: 75-28-5 EINECS: 200-857-2 Reg.nr.: 01-2119485395-27	isobutane (<0,1% butadiene) ⚠ Flam. Gas 1A, H220; Press. Gas (Comp.), H280	2.5-10%
CAS: 61790-53-2 EC number: 612-383-7	Diatomaceous earth (Silica-Amorphous) substance with a Community workplace exposure limit	6.76%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information:**

Take affected persons out into the fresh air.

Do not leave affected persons unattended.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Wash with water and soap

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** Do not induce vomiting; call for medical help immediately.

· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

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SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** Risk of bursting in case of fire heat
- **5.3 Advice for firefighters**
- **Protective equipment:**
Mouth respiratory protective device.
Wear fully protective suit.
- **Additional information** Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Avoid contact with skin / eyes and inhalation.
Keep sources of ignition (flames, sparks, etc.) away. Do not use engines near by (potential source of ignition)
- **6.2 Environmental precautions:**
No special measures required.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Let volatiles evaporate - stem up residues mechanically
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
Do not spray onto a naked flame or any incandescent material.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Observe official regulations on storing packagings with pressurised containers.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Recommended storage temperature:** 15 - 35°C, max. 50°C
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see item 7.

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· **Ingredients with limit values that require monitoring at the workplace:**

106-97-8 butane, pure

WEL (Great Britain) Short-term value: 1810 mg/m³, 750 ppm
Long-term value: 1450 mg/m³, 600 ppm
Carc (if more than 0.1% of buta-1.3-diene)

67-63-0 Propan-2-ol

WEL (Great Britain) Short-term value: 1250 mg/m³, 500 ppm
Long-term value: 999 mg/m³, 400 ppm

61790-53-2 Diatomaceous earth (Silica-Amorphous)

WEL (Great Britain) Long-term value: 1.2 mg/m³
respirable dust

· **DNELs**

67-63-0 Propan-2-ol

Oral	DNEL Endverbraucher/ Consumers / Consommateur	26 mg/kg BW/ day (.) chronische Exposition, Systemische Wirkungen/ chronic Exposition, systemic effects/ Chronique Exposition, Systématique Effets Overall assessment factor (AF): 2
Dermal	DNEL - Endverbraucher/ Consumers / Consommateur	319 mg/kg BW /day (.) chronische Exposition, Systemische Wirkungen/ chronic Exposition, systemic effects/ Chronique Exposition, Systématique Effets Overall assessment factor (AF): 2
	DNEL Arbeiter / Workers/ Travailleur	888 mg/kg BW /day (.) chronische Exposition, Systemische Wirkungen/ chronic Exposition, systemic effects/ Chronique Exposition, Systématique Effets Overall assessment factor (AF): 1
Inhalative	DNEL Endverbraucher/ Consumers / Consommateur	89 mg /m ³ (.) chronische Exposition, Systemische Wirkungen/ chronic Exposition, systemic effects/ Chronique Exposition, Systématique Effets Overall assessment factor (AF): 2
	DNEL Arbeiter / Workers/ Travailleur	500 mg /m ³ (.) chronische Exposition, Systemische Wirkungen/ chronic Exposition, systemic effects/ Chronique Exposition, Systématique Effets Overall assessment factor (AF): 1

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.

· **Respiratory protection:**

Not necessary if room is well-ventilated.



Use suitable respiratory protective device in case of insufficient ventilation.

Filter: ABEK-P2

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- **Protection of hands:**
- **Material of gloves**



If contamination is possible, use gloves made of nitrile according EN 374

- **Penetration time of glove material** > 480 min / 0,4 mm thickness
- **Eye protection:**



Safety glasses in case of spittings

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

· Form:	Aerosol
· Colour:	Whitish
· Odour:	Recognisable
· Odour threshold:	Not determined.

· **pH-value:** Not applicable.

· Change in condition

· Melting point/freezing point:	Undetermined.
· Initial boiling point and boiling range:	-44 °C value concerns to propellant

· **Flash point:** -97 °C
concerns to propellant

· **Flammability (solid, gas):** Contains extremely flammable liquefied gas

· **Ignition temperature:** > 250 °C

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Risk of bursting at temperatures > 50°C. Damage of the container may lead to the formation of explosive mixtures of gas/vapors with air.

· Explosion limits:

· Lower:	1.5 Vol %
· Upper:	10.9 Vol %
· Pressure (20°C)	3.0 - 5.0 bar

· Density at 20 °C:	ca. 0.613 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not applicable.

· **Solubility in / Miscibility with water:** Not miscible or difficult to mix.

· **Partition coefficient: n-octanol/water:** Not determined.

· Viscosity:

· **Dynamic:** Not determined.

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Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	19.4 %
VOC (EC)	92.60 %
· 9.2 Other information	
Additional information	Vapors are heavier than air.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** Risk of bursting at temperatures >50°C.
- **10.3 Possibility of hazardous reactions**
By use or incidental release the formation of explosive vapor/air mixtures is possible.
- **10.4 Conditions to avoid**
Temperatures >50°C
Avoid the use in the near of ignition sources.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.
- **Additional information:** Stable for a storage time of min. 24 months

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values relevant for classification:**

106-97-8 butane, pure

Inhalative	LC50/4 h	658 mg/l (rat)
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67-63-0 Propan-2-ol

Oral	LD50	5,045 mg/kg (rat)
Dermal	LD50	12,800 mg/kg (rabbit)
Inhalative	LC50/4 h	30 mg/l (rat)

74-98-6 propane

Inhalative	LC50/4 h	> 20 mg/l (rat)
	LC50 /15 min	1,443 mg/l (rat)

75-28-5 isobutane (<0,1% butadiene)

Inhalative	LC50/4 h	> 20 mg/l (rat)
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- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**
May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.

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· **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
Harmful to aquatic organisms
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations


- **13.1 Waste treatment methods**
- **Recommendation**
empty cans: material recycling
filled cans: remove in accordance with local regulations

- **European waste catalogue**

16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 05 00	gases in pressure containers and discarded chemicals
16 05 04*	gases in pressure containers (including halons) containing hazardous substances

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN1950
- **14.2 UN proper shipping name**
- **ADR** 1950 AEROSOLS
- **IMDG** AEROSOLS
- **IATA** AEROSOLS, flammable
- **14.3 Transport hazard class(es)**
- **ADR**
- 
- **Class** 2 5F Gases.

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· Label	2.1
· IMDG, IATA	
	
· Class	2.1
· Label	2.1
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Code	Warning: Gases. - F-D,S-U SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E0 Not permitted as Excepted Quantity
· Transport category · Tunnel restriction code · Remarks:	2 D Transportation as "LIMITED QUANTITIES" according 3.4 ADR is possible. Sole marking: Sign for "Limited Quantities" (rhombus with two black edges) Entry in the transportation document: Transportation according chapter 3.4 ADR Tunnel category "E" in case of a load of 8000 kg (rgross weight) or more. Hazardous goods under the transport regulations listed above may be subject to special regulations. For details please consult the relevant transport regulations
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E0 Not permitted as Excepted Quantity

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· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1
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SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category P3a FLAMMABLE AEROSOLS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t

· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

· **National regulations:**

· **Information about limitation of use:**

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

Class	Share in %
NK	34.4

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

- H220 Extremely flammable gas.
- H225 Highly flammable liquid and vapour.
- H280 Contains gas under pressure; may explode if heated.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.

· **Abbreviations and acronyms:**

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)
- DNEL: Derived No-Effect Level (REACH)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Flam. Gas 1A: Flammable gases – Category 1A
- Aerosol 1: Aerosols – Category 1
- Press. Gas (Comp.): Gases under pressure – Compressed gas
- Press. Gas (Liq.): Gases under pressure – Liquefied gas
- Flam. Liq. 2: Flammable liquids – Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

- *** Data compared to the previous version altered.**