

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 08.03.2023

Version: 8

Revision: 08.03.2023

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

- **1.1 Product identifier**
- **Trade name:** Zeelandia Carlex Spray
- **Article number:** 64-35655-XXXX
- **1.2 Relevant identified uses of the substance or mixture and uses advised against -**
- **Application of the substance / the mixture** Aid
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Mobacc/Pharmaspray/Eurofill
Demeterlaan 30
9641 ML Veendam
The Netherlands
Tel: +31 (0) 598 626666
Fax: +31 (0) 598 625976
- **Further information obtainable from:** Research & Development: j.sleumer@mobacc.com
- **1.4 Emergency telephone number:** During normal business hours: Tel: +31 (0) 598 626666

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

- **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

- **Signal word** Danger
- **Hazard statements**
H222-H229 Extremely flammable aerosol. Pressurised container: May burst 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.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 08.03.2023

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Revision: 08.03.2023

Trade name: Zeelandia Carlex Spray

(Contd. of page 1)

SECTION 3: Composition/information on ingredients

3.2 Mixtures

· **Description:** Active substance with propellant

· Dangerous components:

CAS: 106-97-8 EINECS: 203-448-7 Reg.nr.: 01-2119474691-32	butane (containing < 0.1% butadiene (203-450-8), Note K) Flam. Gas 1A, H220; Press. Gas (Comp.), H280	10-<25%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21	propane Flam. Gas 1A, H220; Press. Gas (Comp.), H280	2.5-<10%
CAS: 75-28-5 EINECS: 200-857-2 Reg.nr.: 01-2119485395-27	isobutane (containing < 0,1 % butadiene (203-450-8), Note K) Flam. Gas 1A, H220; Press. Gas (Comp.), H280	1-<2.5%

· Additional information:

Aerosols and containers fitted with a solid atomizer containing substances or mixtures classified as hazardous by aspiration shall not be labelled for that hazard.

The text of the hazard statements mentioned here can be found in chapter 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **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.

SECTION 5: Firefighting measures

5.1 Extinguishing media

· Suitable extinguishing agents:

Water haze
Fire-extinguishing powder
Carbon dioxide
Alcohol resistant foam

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

5.3 Advice for firefighters

· **Protective equipment:** Mount respiratory protective device.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.

6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

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Version: 8

Revision: 08.03.2023

Trade name: Zeelandia Carlex Spray

(Contd. of page 2)

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:**
 - Do not spray onto a naked flame or any incandescent material.
 - Keep ignition sources away - Do not smoke.
 - Protect against electrostatic charges.
 - 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.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 - Store in a cool location.
 - Observe official regulations on storing packagings with pressurised containers.
- **Information about storage in one common storage facility:**
 - Observe official regulations on storing packagings with pressurised containers.
- **Further information about storage conditions:**
 - Store in cool, dry conditions in well sealed receptacles.
 - Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Ingredients with limit values that require monitoring at the workplace:
106-97-8 butane (containing < 0.1% butadiene (203-450-8), Note K)

OEL (Ireland)	Short-term value: 1000 ppm
WEL (Great Britain)	Short-term value: 1810 mg/m ³ , 750 ppm Long-term value: 1450 mg/m ³ , 600 ppm Carc (if more than 0.1% of buta-1.3-diene)
REL (USA)	Long-term value: 1900 mg/m ³ , 800 ppm
TLV (USA)	Short-term value: 1000 ppm (EX)

74-98-6 propane

OEL (Ireland)	Asphx
OEL (Great Britain)	Long-term value: 1800 mg/m ³ , 1000 ppm Additioneel ingevuld tbv klant voor Hfdst3 SDS
PEL (USA)	Long-term value: 1800 mg/m ³ , 1000 ppm
REL (USA)	Long-term value: 1800 mg/m ³ , 1000 ppm
TLV (USA)	see Appendix F Minimal oxygen content (D, EX)

75-28-5 isobutane (containing < 0,1 % butadiene (203-450-8), Note K)

OEL (Ireland)	Short-term value: 1000 ppm
OEL (Great Britain)	Long-term value: 2400 mg/m ³ , 1000 ppm Additioneel ingevuld obv klant voor Hfdst 3 SDS
TLV (USA)	Short-term value: 1000 ppm (EX)

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 08.03.2023

Version: 8

Revision: 08.03.2023

Trade name: Zeelandia Carlex Spray

(Contd. of page 3)

- **Additional information:** The lists valid during the making were used as basis.
 - **8.2 Exposure controls**
 - **Appropriate engineering controls** No further data; see item 7.
 - **Individual protection measures, such as personal protective equipment**
 - **General protective and hygienic measures:**
Wash hands before breaks and at the end of work.
General ventilation
 - **Respiratory protection:**
Filter AX/P2
Use suitable respiratory protective device in case of insufficient ventilation.
Filter A2/P2
 - **Hand protection**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Wear gloves for the protection against chemicals according to EN 374
Solvent resistant gloves
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
 - **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.5 mm
 - **Penetration time of glove material**
For continuous contact we recommend gloves with breakthrough time of at least 240 minutes, with the preference given to a breakthrough time greater than 480 minutes. For short-term or splash guard we recommend the same. We are aware that suitable gloves that offer this level of protection may not be available. In that case, a shorter breakthrough time are acceptable as long as the procedures governing maintenance and timely replacement are followed. The thickness of the gloves is not a good measure of the resistance of the gloves against a chemical substance, because this depends on the exact composition of the material from which the gloves are made.
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
 - **Eye/face protection**
Safety glasses
- 
Tightly sealed goggles
- **Body protection:**
Use protective suit. (EN-13034/6)
Full skin covering antistatic, chemical and oil resistant clothing and safety shoes are recommended. (EN1149; EN340&EN ISO 13688; EN13034-6).
 - **Environmental exposure controls** Use a suitable container to prevent environmental contamination.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Physical state** Aerosol
- **Colour:** According to product specification
- **Odour:** Characteristic
- **Odour threshold:** Not determined.

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 08.03.2023

Version: 8

Revision: 08.03.2023

Trade name: Zeelandia Carlex Spray

(Contd. of page 4)

· Melting point/freezing point:	Undetermined.
· Boiling point or initial boiling point and boiling range	-44.5 °C
· Flammability	Not applicable.
· Lower and upper explosion limit	
· Lower:	1.5 Vol %
· Upper:	10.9 Vol %
· Flash point:	-97 °C
· Ignition Temperature	365 °C
· Decomposition temperature:	Not determined.
· pH	Mixture is non-polar/aprotic.
· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic:	Not determined
· Solubility	
· water:	Not miscible or difficult to mix.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure at 20 °C:	2100 hPa
· Density and/or relative density	
· Density at 20 °C:	0.782 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.

· 9.2 Other information

· Appearance:	
· Form:	Aerosol
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Solvent content:	
· Organic solvents:	25.0 %
· Change in condition	
· Evaporation rate	Not applicable.

· Information with regard to physical hazard classes

· Explosives	Void
· Flammable gases	Void
· Aerosols	Extremely flammable aerosol. Pressurised container: May burst if heated.
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

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(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 08.03.2023

Version: 8

Revision: 08.03.2023

Trade name: Zeelandia Carlex Spray

(Contd. of page 5)

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**

· Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** Not easily biodegradable
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**
According to the criteria of the EU-classification and labelling "dangerous for environment"(93/21/EWG) the substance/ the product has to be classified as non-hazardous for the environment.
Not hazardous for water.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

HP3	Flammable
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(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 08.03.2023

Version: 8

Revision: 08.03.2023

Trade name: Zeelandia Carlex Spray

(Contd. of page 6)

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

SECTION 14: Transport information

· 14.1 UN number or ID number
· ADR, ADN, IMDG, IATA UN1950

· 14.2 UN proper shipping name
· ADR, ADN UN1950 AEROSOLS
· IMDG AEROSOLS
· IATA AEROSOLS, flammable

· 14.3 Transport hazard class(es)
· ADR

· Class 2.1 Flammable Gases.
· Label 2.1

· ADN
· ADN/R Class: 2.1F

· IMDG, IATA

· Class 2.1 Flammable Gases.
· Label 2.1

· 14.4 Packing group
· ADR, IMDG, IATA Void

· 14.5 Environmental hazards:
· Marine pollutant: No

· 14.6 Special precautions for user
· Hazard identification number (Kemler code): -
· EMS Number: F-D,S-U
· Stowage Code 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.

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 08.03.2023

Version: 8

Revision: 08.03.2023

Trade name: Zeelandia Carlex Spray

(Contd. of page 7)

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|---|--|
| · 14.7 Maritime transport in bulk according to IMO instruments | Not applicable. |
| · Transport/Additional information: | |
| · ADR | |
| · Excepted quantities (EQ) | Code: E0
Not permitted as Excepted Quantity |
| · Tunnel restriction code | D |
| · IMDG | |
| · Limited quantities (LQ) | 1L |
| · Excepted quantities (EQ) | Code: E0
Not permitted as Excepted Quantity |
| · UN "Model Regulation": | UN 1950 AEROSOLS, 2.1 |

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
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

- **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.

- **REGULATION (EU) 2019/1148**

- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

- **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

- **National regulations:**

- **Breakdown regulations:**

Class	Share in %
NK	25-<50

- **VOC-CH** 25.00 %

- **VOC-EU** 195.5 g/l

- **Danish MAL Code** 1-1

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

(Contd. on page 9)

Safety data sheet

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Printing date: 08.03.2023

Version: 8

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Trade name: Zeelandia Carlex Spray

(Contd. of page 8)

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.

H280 Contains gas under pressure; may explode if heated.

· **Classification according to Regulation (EC) No 1272/2008**

Physical and chemical properties: The classification is based on the results of the mixtures tested. Health hazards, Environmental hazards: The method of classification of mixtures based on the constituents of the mixture (sum formula).

· **Department issuing SDS:** Research & Development

· **Contact:** ing. J. Sleumer

· **Date of previous version:** 08.03.2023

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

ADR: Accord relatif au transport international 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)

MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)

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