

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

1.1 Product identifier

Trade name: Electronic spray

This safety data sheet pertains to the following products:

22509 = Electronic spray

409469 = Electronic spray

1.2 Relevant identified uses of the substance or mixture and uses advised against

General use: auxiliaries. Restricted to professional users.

1.3 Details of the supplier of the safety data sheet

Company name: Berner Produkten b.v.

Street/POB-No.: Vogelzankweg 175

Postal Code, city: 6374 AC Landgraaf
Netherlands

WWW: www.berner.nl

E-mail: info@berner.nl

Telephone: +31 45 53 39 133

Department responsible for information:

E-mail: Productsafety.Chemicals@berner-group.com

1.4 Emergency telephone number

Poisons information service:

National Poisons Information Service (Birmingham Unit): 844 892 0111

Transport:

CONSULTANK Lutz Harder GmbH (Contract Qualisys/Berner)

Telephone: +49 (178) 4337434 (from USA: 01149 178 4337434)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

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

Skin Irrit. 2; H315 Causes skin irritation.

STOT SE 3; H336 May cause drowsiness or dizziness.

Asp. Tox. 1; H304 May be fatal if swallowed and enters airways.

Aquatic Chronic 2; H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (CLP)



Signal word:

Danger

Hazard statements:

H222

Extremely flammable aerosol.

H229

Pressurised container: May burst if heated.

H304

May be fatal if swallowed and enters airways.

H315

Causes skin irritation.

H336

May cause drowsiness or dizziness.

H411

Toxic to aquatic life with long lasting effects.

Precautionary statements:	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 vapours/spray. P273 Avoid release to the environment. P312 Call a POISON CENTER/doctor if you feel unwell. P391 Collect spillage. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
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Special labelling

Text for labelling:	EUH208 Contains (R)-p-Mentha-1,8-diene. May produce an allergic reaction. Contains: Pentane Hydrocarbons, C6, isoalkanes, < 5% n-hexane White mineral oil (petroleum)
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2.3 Other hazards

Potentially explosive mixtures may form if adequate ventilation is not provided. Inhaling can lead to irritations of the respiratory tract and mucous membrane. Higher doses may lead to a narcotic effect. The product is skin resorptive. Special danger of slipping by leaking/spilling product..

Endocrine disrupting properties, Results of PBT and vPvB assessment:

No data available

SECTION 3: Composition/information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Chemical characterisation: Blend of active ingredients with propellant.

Hazardous ingredients:

Identifiers	Designation Classification	Content
REACH 01-2119459286-30-xxxx EC No. 203-692-4 CAS 109-66-0	Pentane Flam. Liq. 2; H225. Skin Irrit. 2; H315. STOT SE 3; H336. Asp. Tox. 1; H304. Aquatic Chronic 2; H411. (EUH066).	25 - 50 %
REACH 01-2119473851-33-xxxx list no. 920-750-0 CAS 64742-49-0	Hydrocarbons, C6, isoalkanes, < 5% n-hexane Flam. Liq. 2; H225. Skin Irrit. 2; H315. STOT SE 3; H336. Asp. Tox. 1; H304. Aquatic Chronic 2; H411.	25 - 50 %
EC No. 232-455-8 CAS 8042-47-5	White mineral oil (petroleum) Asp. Tox. 1; H304.	5 - 10 %
EC No. 227-813-5 CAS 5989-27-5	(R)-p-Mentha-1,8-diene Flam. Liq. 3; H226. Skin Irrit. 2; H315. Skin Sens. 1B; H317. Asp. Tox. 1; H304. Aquatic Acute 1; H400. Aquatic Chronic 1; H410. M-factors: Aquatic Acute 1: M = 1.	< 1 %
EC No. 204-696-9 CAS 124-38-9	Carbon dioxide Press. Gas (Liq.); H280.	2.5 - 5 %

Full text of H- and EUH-statements: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:	If medical advice is needed, have product container or label at hand. Take off contaminated clothing and wash it before reuse.
In case of inhalation:	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention if problems persist.
Following skin contact:	Immediately clean with water and soap followed by thorough rinsing. In case of skin reactions, consult a physician.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Subsequently consult an ophthalmologist.
After swallowing:	Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

May be fatal if swallowed and enters airways. May cause drowsiness or dizziness.
Causes skin irritation. May cause allergic reactions in already sensitized persons.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Extinguishing powder, Sand, carbon dioxide

Extinguishing media which must not be used for safety reasons:

Full water jet

5.2 Special hazards arising from the substance or mixture

Extremely flammable aerosol. Pressurised container: May burst if heated.
May form dangerous gases and vapours in case of fire. Furthermore, there may develop:
Carbon monoxide and carbon dioxide

5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Additional information: Hazchem-Code: -

Heating will lead to pressure increase: Danger of bursting and explosion. Use fine water spray to cool endangered containers.

Move undamaged containers from immediate hazard area if it can be done safely.

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Do not allow fire water to penetrate into surface or ground water.

Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours/spray. Avoid contact with the substance.
In case of leakage, eliminate all ignition sources. Provide adequate ventilation.
Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Keep unprotected people away.
Cordon off downwind area at risk and warn inhabitants.

6.2 Environmental precautions

Do not allow to enter into ground-water, surface water or drains. Danger of explosion!
In case of release, notify competent authorities.

6.3 Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).
Thoroughly clean surrounding area.
In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out).

Additional information: Special danger of slipping by leaking/spilling product.

6.4 Reference to other sections

Refer additionally to section 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Avoid breathing vapours/spray. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment.
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.
Take off contaminated clothing and wash it before reuse.
Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation.
Have eye wash bottle or eye rinse ready at work place. When handling large quantities, supply emergency spray.

Precautions against fire and explosion:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed and in a well-ventilated place.
Keep container dry. Keep only in the original container.
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
Store containers in upright position.

Hints on joint storage:

Keep away from food, drink and animal feedingstuffs.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters**

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
109-66-0	Pentane	Great Britain: WEL-TWA	1800 mg/m ³ ; 600 ppm
64742-49-0	Hydrocarbons, C6, isoalkanes, < 5% n-hexane	Great Britain: WEL-TWA	1800 mg/m ³ (C5-C6 alkenes)
124-38-9	Carbon dioxide	Great Britain: WEL-STEL Great Britain: WEL-TWA	27400 mg/m ³ ; 15000 ppm 9150 mg/m ³ ; 5000 ppm

8.2 Exposure controls

Provide good ventilation and/or an exhaust system in the work area.

Personal protection equipment**Occupational exposure controls**

Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded. Recommendation: Use filter type AX (= against vapours of low boiling organic substances) according to EN 14387. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Hand protection: Protective gloves according to EN 374. Glove material: Nitrile rubber - Layer thickness: > 0.68 mm. Breakthrough time: > 480 min. Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to BS EN ISO 16321-1:2022.

Body protection: Flame retardant, antistatic and chemical resistant protective clothing.

General protection and hygiene measures: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Avoid breathing vapours/spray. Do not get in eyes, on skin, or on clothing. When using do not eat or drink. Contaminated work clothing should not be allowed out of the workplace. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse. Have eye wash bottle or eye rinse ready at work place. When handling large quantities, supply emergency spray.

Environmental exposure controls

See subsection 6.2

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Appearance: Physical state at 20 °C and 101.3 kPa: liquid
Form: Aerosol
Colour: Light yellow

Odour: Characteristic

Odour threshold: Not determined

pH: Not determined

Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	<= 35 °C
Flash point/flash point range:	-20 °C
Evaporation rate:	Not applicable
Flammability:	Extremely flammable aerosol.
Explosion limits:	LEL (Lower Explosion Limit): Not determined UEL (Upper Explosive Limit): Not determined
Vapour pressure:	Not determined
Vapour density:	Not determined
Density:	at 20 °C: 0.63 g/mL
Water solubility:	Slightly miscible
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not self-igniting
Decomposition temperature:	No data available
Viscosity, dynamic:	Not determined
Viscosity, kinematic:	Not determined
Explosive properties:	Product is not explosive. Vapours can form explosive mixtures with air.
Oxidizing characteristics:	No data available

9.2 Other information

Additional information: No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Extremely flammable aerosol.
Vapours can form explosive mixtures with air.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Pressurised container: May burst if heated.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

Thermal decomposition: No decomposition when used properly.
No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Toxicological effects:	<p>The statements are derived from the properties of the single components. No toxicological data is available for the product as such.</p> <p>Acute toxicity (oral): Based on available data, the classification criteria are not met.</p> <p>Acute toxicity (dermal): Based on available data, the classification criteria are not met.</p> <p>Acute toxicity (inhalative): Based on available data, the classification criteria are not met.</p> <p>Skin corrosion/irritation: Skin Irrit. 2; H315 = Causes skin irritation.</p> <p>Serious eye damage/irritation: Based on available data, the classification criteria are not met.</p> <p>Sensitisation to the respiratory tract: Based on available data, the classification criteria are not met.</p> <p>Skin sensitisation: Based on available data, the classification criteria are not met.</p> <p>Contains (R)-p-Mentha-1,8-diene. May produce an allergic reaction.</p> <p>Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.</p> <p>Carcinogenicity: Based on available data, the classification criteria are not met.</p> <p>Reproductive toxicity: Based on available data, the classification criteria are not met.</p> <p>Effects on or via lactation: Lack of data.</p> <p>Specific target organ toxicity (single exposure): STOT SE 3; H336 = May cause drowsiness or dizziness.</p> <p>Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.</p> <p>Aspiration hazard: Asp. Tox. 1; H304 = May be fatal if swallowed and enters airways.</p>
Other information:	<p>Information about (R)-p-Mentha-1,8-diene: LD50 Rat, oral: 4,400 mg/kg</p>

Symptoms

Inhaling can lead to irritations of the respiratory tract and mucous membrane.
Higher doses may lead to a narcotic effect.
After contact with skin: The product is skin resorptive.
After eye contact: Upon direct contact with eyes may cause burning, tearing, redness.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:	<p>Toxic to aquatic life with long lasting effects.</p> <p>Information about Hydrocarbons, C6, isoalkanes, < 5% n-hexane: Fish toxicity: LC50 Oncorhynchus mykiss: 18.27 mg/L/96h NOEC Oncorhynchus mykiss: 4.089 mg/L/28d Daphnia toxicity: EC50 Daphnia magna (Big water flea): 31.9 mg/L/48h NOEC Daphnia magna (Big water flea): 7.138 mg/L/21d Information about (R)-p-Mentha-1,8-diene: Algae toxicity: EC50: 0.32 mg/L</p>
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12.2 Persistence and degradability

Further details:	No data available
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12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:

Not determined

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

General information:

Do not allow to enter into ground-water, surface water or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 16 05 04* = Gases in pressure containers (including halons) containing hazardous substances/Aerosol

* = Evidence for disposal must be provided.

Recommendation:

Do not pierce or burn, even after use.

Special waste. Dispose of waste according to applicable legislation.

Do not dispose of with household waste.

Package

Waste key number: 15 01 10* = packaging containing residues of or contaminated by dangerous substances

* = Evidence for disposal must be provided.

Recommendation:

Dispose of waste according to applicable legislation.

Empty carefully and completely, if possible. Handle empty containers with care. Incineration may cause explosion.

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA-DGR: UN 1950

14.2 UN proper shipping name

ADR/RID: UN 1950, AEROSOLS

IMDG: UN 1950, AEROSOLS (Pentane; Hydrocarbons, C6, isoalkanes, < 5% n-hexane),
MARINE POLLUTANT

IATA-DGR: UN 1950, AEROSOLS, FLAMMABLE

14.3 Transport hazard class(es)

ADR/RID: Class 2, Code: 5F
IMDG: Class 2.1, Subrisk -
IATA-DGR: Class 2.1

**14.4 Packing group**

ADR/RID, IATA-DGR: not applicable
IMDG: -

**14.5 Environmental hazards**

Marine pollutant: yes

14.6 Special precautions for user**Land transport (ADR/RID)**

Warning board: RID: Kemmler-number 23, UN number UN 1950
Hazard label: 2.1
Special Provisions: 190 327 344 625
Limited quantities: 1 L
EQ: E0
Package - Instructions: P207 LP200
Package - Special Provisions: PP87 RR6 L2
Special provisions for packing together: MP9
Tunnel restriction code: D

Sea transport (IMDG)

EmS: F-D, S-U
Special Provisions: 63 190 277 327 344 381 959
Limited quantities: 1000 mL
Excepted quantities: E0
Package - Instructions: P207, LP200
Package - Provisions: PP87, L2
IBC - Instructions: -
IBC - Provisions: -
Tank instructions - IMO: -
Tank instructions - UN: -
Tank instructions - Provisions: -
Stowage and handling: SW1 SW22
Segregation: SG69
Properties and observations: -
Segregation group: none

Air transport (IATA)

Hazard label: Flamm. gas
Excepted Quantity Code: E0
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y203 - Max. Net Qty/Pkg. 30 kg G
Passenger and Cargo Aircraft: Pack.Instr. 203 - Max. Net Qty/Pkg. 75 kg
Cargo Aircraft only: Pack.Instr. 203 - Max. Net Qty/Pkg. 150 kg
Special Provisions: A145 A167 A802
Emergency Response Guide-Code (ERG): 10L

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code:

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No data available

National regulations - EC member states

Further regulations, limitations and legal requirements:

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]

Physical hazards: Code P3a, Quantity threshold 150 000 kg / 500 000 kg

Environmental hazards: Code E2, Quantity threshold 200 000 kg / 500 000 kg

Use restriction according to REACH annex XVII, no.: 3, 40, 75

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]: P3b, E2

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

SECTION 16: Other information

Further information

Wording of the H-phrases under paragraph 2 and 3:

H222 = Extremely flammable aerosol.

H225 = Highly flammable liquid and vapour.

H226 = Flammable liquid and vapour.

H229 = Pressurised container: May burst if heated.

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

H304 = May be fatal if swallowed and enters airways.

H315 = Causes skin irritation.

H317 = May cause an allergic skin reaction.

H336 = May cause drowsiness or dizziness.

H400 = Very toxic to aquatic life.

H410 = Very toxic to aquatic life with long lasting effects.

H411 = Toxic to aquatic life with long lasting effects.

EUH066 = Repeated exposure may cause skin dryness or cracking.

EUH208 = Contains (R)-p-Mentha-1,8-diene. May produce an allergic reaction.

Abbreviations and acronyms: ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
Aerosol: Aerosol
Aquatic Acute: Hazardous to the aquatic environment - acute
Aquatic Chronic: Hazardous to the aquatic environment - chronic
AS/NZS: Australian Standards/New Zealand Standards
Asp. Tox.: Aspiration toxicity
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
CLP: Classification, Labelling and Packaging
DMEL: Derived minimal effect level
DNEL: Derived no-effect level
EC: European Community
EC50: Effective Concentration 50%
EN: European Standard
EQ: Excepted quantities
EU: European Union
Flam. Liq.: Flammable liquid
IATA: International Air Transport Association
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IMDG Code: International Maritime Dangerous Goods Code
LC50: Median lethal concentration
LD50: Lethal dose 50%
LEL: Lower Explosion Limit
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
M-factor: Multiplication factor
NOEC: No Observed Effect Concentration
OEL: Occupational Exposure Limit Value
OSHA: Occupational Safety and Health Administration
PBT: Persistent, bioaccumulative and toxic
PNEC: Predicted no-effect concentration
Press. Gas: Gases under pressure
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
Skin Irrit.: Skin irritation
Skin Sens.: Skin sensitisation
STOT SE: Specific target organ toxicity - single exposure
TLV: Threshold Limit Value
TRGS: Technical Rules for Hazardous Substances
UN: United Nations
vPvB: Very persistent and very bioaccumulative
WEL: Workplace Exposure Limit

Reason of change: Changes in section 14: General revision

Date of first version: 31/3/2021

Department issuing data sheet

Contact person: see section 1: Department responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.