

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

SIEVERT®

Product name: Sievert Powergas disposable cartridge **2203** 175g, 320ml

Supplier: Sievert AB, P.O. Box 1366, SE-171 26 Solna, Sweden

In an emergency situation please call **+46 8 629 22 00** for additional information on the product.

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS-No	EINECS-No	Content	Hazard symbol/R-wording
Propane	74-98-6	200-827-9	35%	F+, R12 S2, 9, 16
Isobutane/n-butane	106-97-8	203-448-7	65%	F+, R12 S2, 9, 16

3. HAZARD IDENTIFICATION



F+ *Extremely flammable*

R12 *Extremely flammable*
S2 Keep out of the reach of children
S9 Keep container in a well-ventilated place
S16 Keep away from sources of ignition - No smoking

Additional information on listed risk phrases see section 16.

4. FIRST AID MEASURES

Inhalation: Supply fresh air, consult doctor in case of complaints.

Skin contact: Generally the product does not irritate the skin.
If frostbite occur, flush with lukewarm water (105-115°F, 41°C)
DO NOT USE HOT WATER, contact doctor.

Eye contact: Rinse opened eye for several minutes under running water.
Contact doctor if any symptoms remain.

Ingestion: If symptoms persist consult doctor.

5. FIRE FIGHTING MEASURES

Suitable extinguishing agents:	CO2, sand, extinguishing powder. Do not use water.
For safety reasons unsuitable extinguishing agents:	Water, Water with full jet.
Protective equipment:	No special measures required.

6. ACCIDENTAL RELEASE MEASURES

Person-related safety precautions:	Wear protective equipment. Keep unprotected persons away. Keep ignition sources away.
Measures for environmental protection:	No special measures required.
Measures for cleaning/collecting:	Ensure good ventilation. Do not flush with water or aqueous cleansing agents.

7. HANDLING AND STORAGE

Handling:	
Information for safe handling:	Ensure good ventilation/exhaustion at the workplace. Open and handle receptacle with care.
Information about fire – and explosion protection:	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. Do not pierce or burn, even after use. Do not spray onto a naked flame or any incandescent material.
STORAGE:	
Requirements to be met by storerooms and receptacles:	Store in a cool and well-ventilated location. Observe official regulations on storing packagings with pressurised containers.
Information about storage in one common storage facility:	Not required.

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Further information about storage conditions:

Keep receptacle tightly sealed.
Store in cool, dry condition.
Protect from heat and direct sunlight.

Class according to regulation on flammable liquids:

Void.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical facilities:

No further data; see item 7.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

Form: Aerosol
Colour: Colourless
Odour: Characteristic

Boiling point/Boiling range: -44 °C

Flash point: <0 °C

Ignition temperature: 365 °C

Self-ignition Product is not self-igniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower: 1,5 Vol%

Upper: 10,9 Vol%

Vapour pressure at 20 °C: 4,01 Bar

Density at 20 °C: 0,550 Kg/m³

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

Solvent contents:

Organic solvents: 100%

10. STABILITY AND REACTIVITY

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Dangerous reactions:

No dangerous reactions known.

Dangerous decomposition products:

No dangerous decomposition products known.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Primary irritant effect

On the skin:

No irritant effect.

On the eye:

No irritating effect.

Sensitisation:

No sensitising effects known.

12. ECOLOGICAL INFORMATION

General note:

Generally not hazardous for water.

13. DISPOSICAL CONSIDERATION

Recommendation:

Must not be disposed together with household garbage.
Do not allow product to reach sewage system.
Product to be deposited at suitable recirculation place,
according to official regulations.

14. TRANSPORT INFORMATION

Land transport ADR / RID (car and train)

ADR / RID Class: 2 5F

UN-Number: 1950

Packing group: -

Hazard label: 2,1

Description of goods: 1950 AEROSOLS. Flammable.

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(Contd. from page 4)

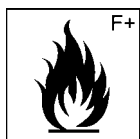
Marine transport IMDG

IMDG Class: 2,1
UN-Number: 1950
Label: 2,1
Packing group: -
EMS Number:
Marine pollutant: No
Proper shipping name: AEROSOLS

Air transport ICAO / IATA

ICAO / IATA Class: 2,1
UN-Number: 1950
Label: 2,1
Packaging group: -
Proper shipping name: AEROSOLS. Flammable.

15. REGULATORY INFORMATION



Extremely flammable

FLAMMABLE GAS UNDER PRESSURE.

Protect from direct sunlight. Do not expose to temperatures exceeding 50°C (120°F)
Keep out of reach of children. For use with Sievert appliance only. Follow strictly the instructions for use supplied with the appliance. **WARNING: DO NOT REFILL.** Do not puncture/pierce or incinerate even after use. Changing the cartridge: assemble or dismantle cartridge from appliance outdoors only, free from ignition sources. Close the appliance valve. Remove the appliance from the cartridge. Replace the connection seal if it is damaged or lost. Avoid cross threading. Screw the down hand tight only. Store in cool dry place. Discard in a safe place. This cartridge complies with EN 417.

16. OTHER INFORMATION

Risks at inhalation: Propane/butane is a gas slightly narcotic and may in highly concentrated form irritate mucous membranes and cause suffocation. The suffocation effect is proportional to the decrease of the partial pressure of the oxygen in the inhalation air obtained at a mixture of propane/butane and air. When the oxygen content has decreased to three fourths or less of the normal content asphyxia occurs.

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The body interprets this as a lack of oxygen and reacts (at concentrations of 50 vol.-% propane/butane in air) with pronounced symptoms of suffocation in the form of difficulty to breath and hyperventilation simultaneously with deteriorated reaction ability and impaired muscle coordination. More serious cases (at concentrations of 75 vol.-% propane/butane in air) may end in unconsciousness and death.

Risks at contact:

Propane/butane in liquefied or gaseous form may cause serious frostbites on skin or eyes. If propane/butane in liquefied form gets into contact with objects of a higher temperature than the liquid itself it results in fierce boiling and splashing.

Risks of fire and explosion:

Propane/butane is a highly inflammable gas. Mixtures of air with a content of 3,35 - 23,8 weight-% propane/butane (2,0 - 10,2 vol.-%) are explosive. Propane/butane is heavier than air and falls to the ground.