

MOLYKOTE(R) S-1014 OPEN GEAR SPRAY

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

Trade name	:	MOLYKOTE(R) S-1014 OPEN GEAR SPRAY
Company	:	Dow Corning S.A. Parc Industriel - Zone C B-7180 Seneffe Belgium
Service	:	Dow Corning Central Europe Dow Corning Northern Europe Dow Corning Southern Europe
Emergency Phone Number	:	Dow Corning (Barry U.K. 24h) Dow Corning (Wiesbaden 24h) Dow Corning (Seneffe 24h)
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2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization: Hydrocarbon aerosol propellant

Hazardous Ingredients:

Name	CAS-No.	EINECS/ ELINCS No.	Conc. (% w/w)	Classification
Butane	106-97-8	203-448-7	56.0	
Gear Grease	-	Exempt or not available	34.0	R52/53
Solvent naphtha (petroleum), hydrotreated light naphthenic	92062-15-2	Exempt or not available	4.0	Xn R65
Dimethoxymethane	109-87-5	203-714-2	2.0	

3. HAZARDS IDENTIFICATION

The principal hazards of the product as supplied are:

Extremely flammable.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

On contact with eyes	:	Flush with water.
On skin contact	:	Flush with water.
If inhaled	:	Remove to fresh air.

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On ingestion : No first aid should be needed.

5. FIRE FIGHTING MEASURES

- Suitable extinguishing media** : Carbon dioxide, foam, dry powder or fine water spray. Water can be used to cool fire exposed containers.
- Unsuitable extinguishing media** : None known.
- Hazards during fire fighting** : Pressurised container capable of exploding if heated.
- Special protective equipment/procedures** : A self-contained respirator and protective clothing should be worn. Keep containers cool with water spray until well after the fire is out. Determine the need to evacuate or isolate the area according to your local emergency plan.
- Hazardous Combustion Products** : Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Wear proper protective equipment.
- Precautions to protect the environment** : Do not empty into drains. Prevent from spreading or entering into drains, ditches or rivers by using sand, earth or other appropriate barriers.
- Methods for cleaning up** : Determine the need to evacuate or isolate the area according to your local emergency plan. Eliminate all possible sources of ignition.

7. HANDLING AND STORAGE

- Advice on safe handling** : General ventilation is required. Local ventilation is required. Do not breathe spray or mist. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Avoid skin and eye contact.
- Advice on storage** : Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Store in a flameproof, well ventilated area.
- Specific uses** : Refer to technical data sheet available on request.
- Unsuitable packaging materials** : None known.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Engineering Controls** : Ventilation : Refer to Section 7

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Exposure controls for hazardous components

Name	CAS-No.	Exposure Limits
Butane	106-97-8	750 ppm STEL 600 ppm TWA 1,810 mg/m ³ STEL 1,450 mg/m ³ TWA
Dimethoxymethane	109-87-5	1,250 ppm STEL 1,000 ppm TWA 3,950 mg/m ³ STEL 3,160 mg/m ³ TWA

Personal protection equipment

Respiratory protection	:	A suitable respirator must be worn if the product is used in any circumstances where an aerosol or mist may be generated, such as during spraying or similar activities
Hand protection	:	Chemical protective gloves should be worn where repeated or prolonged contact can occur: 4H(TM). Silver shield(TM). Viton(TM). Regarding glove's breakthrough time...,contact your chemical protective glove supplier.
Eye protection	:	Safety glasses should be worn.
Skin protection	:	Protective equipment is not normally necessary.
Hygiene measures	:	Exercise good industrial hygiene practice. Wash after handling, especially before eating, drinking or smoking.
Environmental exposure controls	:	Refer to section 6 and 12.
Additional information	:	None known.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form: Aerosol **Colour:** Black **Odour:** Characteristic odour

Other data

Boiling point/range	:	< 35 °C
Flash point	:	< 0 °C
Autoignition temperature	:	200 °C
Explosive properties	:	No
Specific Gravity	:	0.9

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Oxidizing properties : No

The above information is not intended for use in preparing product specifications. Contact Dow Corning before writing specifications.

10. STABILITY AND REACTIVITY

Stability : Stable under normal usage conditions.

Conditions to avoid : None established.

Materials to avoid : Can react with strong oxidising agents.

Hazardous decomposition products : See section 11.

11. TOXICOLOGICAL INFORMATION

On contact with eyes : Slightly irritating.

On skin contact : Repeated or prolonged contact may cause defatting of the skin, leading to dermatitis.

If inhaled : May cause dizziness, drowsiness, confusion, headaches, nausea, and at high concentrations, unconsciousness.

On ingestion : Small amounts transferred to the mouth by fingers during use should not injure. Swallowing large amounts may cause digestive discomfort.

Other Health Hazard Information : Product may emit formaldehyde vapours at temperatures above 150°C in the presence of air. Formaldehyde vapour is harmful by inhalation and irritating to eyes and respiratory system at breathing concentration less than one part per million (1 ppm).

¹ Based on product test data.

² Based on test data from similar products.

12. ECOLOGICAL INFORMATION**Environmental fate and distribution**

The mineral oils in the product are biodegradable.

Ecotoxicity effects

Harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

Bioaccumulation : Low potential to bioaccumulate.

Fate and effects in waste water treatment plants

May cause adverse effects on bacteria. If used as intended this product is not expected to reach waste water treatment plants.

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Product disposal : Dispose of in accordance with local regulations.

Packaging disposal : Dispose of in accordance with local regulations.

MOLYKOTE(R) S-1014 OPEN GEAR SPRAY**14. TRANSPORT INFORMATION****Road / Rail (ADR/RID)**

UN No. : 1950

Proper Shipping Name : AEROSOLS

Class : 2

Packing group : Not Applicable

Trem-Card : UN1950F

Labels : Marks: Aerosols
FLAMMABLE GAS

Sea transport (IMDG)

UN No. : 1950

Proper Shipping Name : AEROSOLS, FLAMMABLE

Class : 2 LTD. QTY.

Packing group : Not Applicable

Medical First Aid Guide (MFAG) : REFER TO THE EMERGENCY ACTION TABLE OF MFAG

Emergency Schedule (EmS) : EMS F-D EMS S-U

Marine pollutant : Not Applicable

Labels : FLAMMABLE GAS

Air transport (IATA)

UN No. : 1950

Proper Shipping Name : AEROSOLS, FLAMMABLE

Class : 2.1 LTD. QTY.

Packing group : Not Applicable

Labels : FLAMMABLE GAS

MOLYKOTE(R) S-1014 OPEN GEAR SPRAY**15. REGULATORY INFORMATION****Labelling according to EEC Directive**

- Symbols** : F+ Extremely flammable.
- R-phrases** : R12 Extremely flammable.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- S-phrases** : S2 Keep out of the reach of children.
S16 Keep away from sources of ignition - No smoking.
S23(S) Do not breathe spray.
S51 Use only in well-ventilated areas.
S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.
- Other phrases** : Do not spray on a naked flame or any incandescent material.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

National legislation / regulations

- Ozone depleting chemicals** : No ozone depleting chemicals are present or used in manufacture.

Status

- EINECS** : All ingredients listed or exempt.

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This product safety data sheet was prepared in compliance with Commission Directive 91/155/EEC, 67/548/EEC and 1999/45/EC as well as their relevant amendments, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labelling of dangerous substances and preparations.

It is the responsibility of persons in receipt of this Product Safety Data Sheet to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces a formulation containing the Dow Corning product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from the Dow Corning Product Safety Data Sheet to their own Product Safety Data Sheet in compliance with Commission Directive 1999/45/EC.

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS. Dow Corning shall not be held responsible for any defect in the product covered by this SDS, should the existence of such defect not be detectable considering the current state of scientific and technical knowledge.

As stated above, this Safety Data Sheet has been prepared in compliance with applicable European law. If you purchase this material outside Europe, where compliance laws may differ, you should receive from your local Dow Corning supplier a SDS applicable to the country in which the product is sold and intended to be used. Please note that the appearance and content of the SDS may vary - even for the same product - between different countries, reflecting the different compliance requirements. Should you have any question, please refer to your local Dow Corning supplier.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment., **R65** Harmful: May cause lung damage if swallowed.