

Safety data sheet

according to UK REACH

Printing date: 17.06.2025

Revision: 17.06.2025

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

· **Product identifier**

· **Trade name:** Muc-Off Bio Air Filter Oil

· **Article number:** 21463

· **UFI:** FD22-G0CH-200P-HH5F

· **Relevant identified uses of the substance or mixture and uses advised against**

· **Application of the substance / the mixture** Surface protection

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Muc-Off Ltd

UK - Muc-Off Ltd, Unit 23 Branksome Business Park, Bourne Valley Road, Poole, Dorset, BH12 1DW

EU - Muc-Off Ltd, Unit 3D North Point House, North Point Business Park, NewMallow Road, Cork,

Ireland, T23 AT2P Tel: +44(0)1202 307790 Email: info@muc-off.com

· **Further information obtainable from:** Research & Development: info@muc-off.com

Emergency telephone number:

NHS 111/NHS 24/NHS Direct 111 / 0845 4647 or call a doctor

2 Hazards identification

· **Classification of the substance or mixture**



GHS02 flame

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

· **Label elements**

· **GHS label elements**

The product is classified and labelled according to the Globally Harmonised System (GHS).

· **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.

P260 Do not breathe mist/vapours/spray.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves / eye protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P403 Store in a well-ventilated place.

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:**

EUH066 Repeated exposure may cause skin dryness or cracking.

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

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3 Composition/information on ingredients

- **Chemical characterisation: Mixtures**
- **Description:** Mixture of 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: 109-87-5 EINECS: 203-714-2 Reg.nr.: 01-2119664781-31	methane, dimethoxy- Flam. Liq. 2, H225	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%
EC number: 927-241-2 Reg.nr.: 01-2119471843-32 01-2119463258-33	Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics Flam. Liq. 3, H226; Asp. Tox. 1, H304; STOT SE 3, H336; Aquatic Chronic 3, H412	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	2.5-<10%

· **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.

4 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.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Suitable extinguishing agents:**
Water haze
Fire-extinguishing powder
Carbon dioxide
Alcohol resistant foam
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Protective equipment:** Mount respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.

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- **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.
Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:**

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

- **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.

7 Handling and storage

- **Handling:**

- **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.

- **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.

- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see section 7.

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

106-97-8 butane (containing < 0.1% butadiene (203-450-8), Note K)

WEL	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)

109-87-5 methane, dimethoxy-

WEL	Short-term value: 3950 mg/m ³ , 1250 ppm
	Long-term value: 3160 mg/m ³ , 1000 ppm

74-98-6 propane

OEL	Long-term value: 1800 mg/m ³ , 1000 ppm
	Additioneel ingevuld tbv klant voor Hfdst3 SDS

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

OEL	Long-term value: 2400 mg/m ³ , 1000 ppm
	Additioneel ingevuld obv klant voor Hfdst 3 SDS

- **Regulatory information** WEL: EH40/2020

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· **DNELs****Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics**

Oral	DNEL Long term-systemic	46 mg/kg bw/day (Consumer)
Dermal	DNEL Long term-systemic	46 mg/kg bw/day (Consumer) 77 mg/kg bw/day (Worker)
Inhalative	DNEL Long term-systemic	185 mg/m ³ (Consumer) 871 mg/m ³ (Worker)

· **Additional information:** The lists valid during the making were used as basis.· **Personal protective equipment:**· **General protective and hygienic measures:**

Wash hands before breaks and at the end of work.

General ventilation

· **Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation.

Filter A2/P2

· **Protection of hands:**

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**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Safety glasses



Tightly sealed goggles

· **Body protection:**

Use protective suit. (EN-13034/6)

Fully skin-covering anti-static, chemical- and oil-resistant clothing and safety shoes are recommended. (EN1149; EN340&EN ISO 13688; EN13034-6).

· **Limitation and supervision of exposure into the environment**

Use an appropriate container to avoid environmental pollution.

9 Physical and chemical properties

· **General Information**

· Colour:	According to product specification
· Odour:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Mixture is non-polar/aprotic.
· Melting point/freezing point:	Undetermined.
· Initial boiling point and boiling range:	-44.5 °C
· Flash point:	-97 °C
· Flammability	Not applicable.
· Ignition Temperature	238 °C

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· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
· Lower:	0.6 Vol %
· Upper:	24.7 Vol %
· Vapour pressure at 20 °C:	2100 hPa
· Vapor Pressure at 30 °C:	2800 hPa
· Density at 20 °C:	0.684 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with	
· water:	Fully miscible.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
· Dynamic:	Not determined
· Kinematic:	Not determined.
· Organic solvents:	64.7 %
· Solids content:	24.2 %

10 Stability and reactivity

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

11 Toxicological information

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

· LD/LC50 values relevant for classification:

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Oral	LD50	>5000 mg/kg (Rat)
Dermal	LD50	>5000 mg/kg (Rabbit)
Inhalative	LC50 (4h)	4951 mg/l (Rat)

- **Primary irritant effect:**
- **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.

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12 Ecological information

· Toxicity

· Aquatic toxicity:

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

NOEC	0.1-1 mg/l (Undefined)
EC50 (72h)	>100 mg/l (algae)
LC50 (96h)	10-100 mg/l (Fish)
EC50 (48h)	10-100 mg/l (Daphnia magna)

· **Persistence and degradability** Not easily biodegradable

· **Behaviour in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packaging:**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

· **UN-Number**

· **ADR, ADN, IMDG, IATA**

UN1950

· **UN proper shipping name**

· **ADR, ADN**

UN1950 AEROSOLS

· **IMDG**

AEROSOLS

· **IATA**

AEROSOLS, flammable

· **Transport hazard class(es)**

· **ADR**



· **Class**

2 5F Gases.

· **Label**

2.1

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· ADN

· ADN/R Class:

2 5F

· IMDG, IATA



· Class

2.1 Gases.

· Label

2.1

· Packing group

· ADR, IMDG, IATA

Void

· Environmental hazards:

· Marine pollutant:

Yes

· Special precautions for user

Warning: Gases.

· 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.

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

Not applicable.

· Transport/Additional information:

· ADR

· Limited quantities (LQ)

1L

· Excepted quantities (EQ)

Code: E0

Not permitted as Excepted Quantity

· Transport category

2

· 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

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15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Poisons Act

· Regulated explosives precursors

None of the ingredients is listed.

· Regulated poisons

None of the ingredients is listed.

· Reportable explosives precursors

None of the ingredients is listed.

· 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

- National regulations:

- Breakdown regulations:

Class	Share in %
NK	50-<75

- VOC-CH 64.72 %

- VOC-EU 442.6 g/l

- Danish MAL Code 5-3

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

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.

H226 Flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

· 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: info@muc-off.com

· 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)

ICAO: International Civil Aviation Organisation

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

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 Arbejdshygienisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)

DNEL: Derived No-Effect Level (UK REACH)

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LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
Flam. Gas 1A: Flammable gases – Category 1A
Aerosol 1: Aerosols – Category 1
Press. Gas (Comp.): Gases under pressure – Compressed gas
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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

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