



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 06/27/2023

Reviewed on 06/27/2023

**1 Identification**

- **Product identifier**
- **Trade name:** Muc-Off Motorcycle Protectant
- **Article number:** 608US, 601US
- **Application of the substance / the mixture** Lubricant
- **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, New Mallow Road, Cork, Ireland, T23 AT2P Tel: +44(0)1202 307790 Email: info@muc-off.com
- **Information department:**
- Research & Development/E-mail: info@muc-off.com
- **Emergency telephone number:** CHEMTREC: 1-800-424-9300 24HR

**2 Hazard(s) identification**

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Aerosols 1 H222 Extremely flammable aerosol.



GHS08 Health hazard

Aspiration Hazard 1 H304 May be fatal if swallowed and enters airways.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02 GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

Hydrocarbons,C10-C13,n-alkanes,cyclic,<2%aromates, Benzene <0.1%

- **Hazard statements**

H222 Extremely flammable aerosol.

H304 May be fatal if swallowed and enters airways.

- **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Pressurized container: 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.

P312 Call a poison center/doctor if you feel unwell.

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.

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/27/2023

Reviewed on 06/27/2023

**Trade name: Muc-Off Motorcycle Protectant**

(Contd. of page 1)

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0  
Fire = 4  
Reactivity = 0

- **WHMIS-ratings (scale 0 - 4)**



Health = 0  
Fire = 4  
Reactivity = 3

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Active substance with propellant

· **Dangerous components:**

	Hydrocarbons, C10-C13, n-alkanes, cyclic, <2% aromates, Benzene <0.1%	50-<75%
74-98-6	propane	2.5-<10%
106-97-8	butane (containing < 0.1% butadiene (203-450-8), Note K)	2.5-<10%
75-28-5	isobutane (containing < 0,1 % butadiene (203-450-8), Note K)	1-<2.5%

### 4 First-aid measures

- **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; immediately call for medical help.
- **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 Fire-fighting measures

- **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
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mount respiratory protective device.

-US-

(Contd. on page 3)

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 06/27/2023

Reviewed on 06/27/2023

**Trade name: Muc-Off Motorcycle Protectant**

(Contd. of page 2)

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

- **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.

- **Protective Action Criteria for Chemicals**

- **PAC-1:**

74-98-6	propane	5500* ppm
106-97-8	butane (containing < 0.1% butadiene (203-450-8), Note K)	5500* ppm
75-28-5	isobutane (containing < 0,1 % butadiene (203-450-8), Note K)	5500* ppm
91-64-5	Coumarin	0.88 mg/m <sup>3</sup>
123-11-5	p-Methoxybenzaldehyde	21 mg/m <sup>3</sup>
120-51-4	Benzyl benzoate	5.7 mg/m <sup>3</sup>

- **PAC-2:**

74-98-6	propane	17000** ppm
106-97-8	butane (containing < 0.1% butadiene (203-450-8), Note K)	17000** ppm
75-28-5	isobutane (containing < 0,1 % butadiene (203-450-8), Note K)	17000** ppm
91-64-5	Coumarin	9.7 mg/m <sup>3</sup>
123-11-5	p-Methoxybenzaldehyde	230 mg/m <sup>3</sup>
120-51-4	Benzyl benzoate	63 mg/m <sup>3</sup>

- **PAC-3:**

74-98-6	propane	33000*** ppm
106-97-8	butane (containing < 0.1% butadiene (203-450-8), Note K)	53000*** ppm
75-28-5	isobutane (containing < 0,1 % butadiene (203-450-8), Note K)	53000*** ppm
91-64-5	Coumarin	58 mg/m <sup>3</sup>
123-11-5	p-Methoxybenzaldehyde	300 mg/m <sup>3</sup>
120-51-4	Benzyl benzoate	380 mg/m <sup>3</sup>

### 7 Handling and storage

- **Handling:**

- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.

- **Information about protection against explosions and fires:**

Do not spray on a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurized 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.

(Contd. on page 4)

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 06/27/2023

Reviewed on 06/27/2023

**Trade name: Muc-Off Motorcycle Protectant**

(Contd. of page 3)

- **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 pressurized containers.
- **Information about storage in one common storage facility:**  
Observe official regulations on storing packagings with pressurized 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 systems:** No further data; see section 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.  
At this time, the remaining constituent has no known exposure limits.

#### 74-98-6 propane

PEL	Long-term value: 1800 mg/m <sup>3</sup> , 1000 ppm
REL	Long-term value: 1800 mg/m <sup>3</sup> , 1000 ppm
TLV	see Appendix F Minimal oxygen content ( D, EX)

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

REL	Long-term value: 1900 mg/m <sup>3</sup> , 800 ppm
TLV	Short-term value: 1000 ppm (EX)

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

TLV	Short-term value: 1000 ppm (EX)
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- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Wash hands before breaks and at the end of work.  
Do not inhale gases / fumes / aerosols.  
General ventilation
- **Breathing equipment:**  
Use suitable respiratory protective device in case of insufficient ventilation.  
Filter A2/P2
- **Protection of hands:**  
Draag handschoenen voor bescherming tegen chemicaliën volgens EN 374



Protective gloves

- 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.

(Contd. on page 5)

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 06/27/2023

Reviewed on 06/27/2023

**Trade name: Muc-Off Motorcycle Protectant**

(Contd. of page 4)

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.5$  mm

- **Penetration time of glove material**

The exact break trough 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.

Full skin covering antistatic, 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 a suitable container to prevent environmental contamination.

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

**Form:** Aerosol

**Color:** Clear

- **Odor:** Sweetish

- **Odor threshold:** Not determined.

- **pH-value:** Mixture is non-polar/aprotic.

- **Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** -44.5 °C (-48.1 °F)

- **Flash point:** -97 °C (-142.6 °F)

- **Flammability (solid, gaseous):** Not applicable.

- **Auto igniting:** 236 °C (456.8 °F)

- **Decomposition temperature:** Not determined.

- **Ignition temperature:** Product is not selfigniting.

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

- **Explosion limits:**

**Lower:** 0.7 Vol %

**Upper:** 10.9 Vol %

- **Vapor pressure at 20 °C (68 °F):** 2800 hPa (2100.2 mm Hg)

- **Vapor pressure at 50 °C (122 °F):** 4900 hPa (3675.3 mm Hg)

- **Density at 20 °C (68 °F):** 0.737 g/cm<sup>3</sup> (6.15 lbs/gal)

- **Relative density** Not determined.

- **Vapor density** Not determined.

- **Evaporation rate** Not applicable.

- **Solubility in / Miscibility with**

**Water:** Not miscible or difficult to mix.

(Contd. on page 6)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/27/2023

Reviewed on 06/27/2023

**Trade name: Muc-Off Motorcycle Protectant**

(Contd. of page 5)

 · **Partition coefficient (n-octanol/water):** Not determined.

 · **Viscosity:**

   **Dynamic:** Not determined.

   **Kinematic:** Not determined.

 · **Solvent content:**

   **Organic solvents:** 89.1 %

   **Solids content:** 0.7 %

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **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:**

 · **LD/LC50 values that are relevant for classification:**
**Hydrocarbons,C10-C13,n-alkanes,cyclic,<2%aromates, Benzene <0.1%**

Oral	LD50	>5000 mg/kg (Rat)
Dermal	LD50	>2000 mg/kg (Rabbit)
Inhalative	LC50 (4h)	4951 mg/l (Rat)

 · **Primary irritant effect:**

 · **on the skin:** No irritant effect.

 · **on the eye:** No irritating effect.

 · **Sensitization:** No sensitizing effects known.

 · **Additional toxicological information:**

 · **Carcinogenic categories**

 · **IARC (International Agency for Research on Cancer)**

91-64-5 Coumarin

3

 · **NTP (National Toxicology Program)**

None of the ingredients is listed.

 · **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

 · **Toxicity**

 · **Aquatic toxicity:**
**Hydrocarbons,C10-C13,n-alkanes,cyclic,<2%aromates, Benzene <0.1%**

EL0 (48h)	1000 mg/l (Daphnia magna)
EL0 (72h)	1000 mg/l (Pseudokirchneriella subcapitata)

(Contd. on page 7)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/27/2023

Reviewed on 06/27/2023

**Trade name: Muc-Off Motorcycle Protectant**

(Contd. of page 6)



LL0 (96h) | 1000 mg/l (Oncorhynchus mykiss)

- **Persistence and degradability** Not easily biodegradable
- **Behavior 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 1 (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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 of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

- |   |                     |
|---|---------------------|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> </ul>                  | UN1950              |
| <ul style="list-style-type: none"> <li>· <b>DOT, ADR, ADN, IMDG, IATA</b></li> </ul>  | UN1950              |
| <ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> </ul>    | Aerosols, flammable |
| <ul style="list-style-type: none"> <li>· <b>DOT</b></li> </ul>                        | Aerosols, flammable |
| <ul style="list-style-type: none"> <li>· <b>ADR, ADN</b></li> </ul>                   | UN1950 AEROSOLS     |
| <ul style="list-style-type: none"> <li>· <b>IMDG</b></li> </ul>                       | AEROSOLS            |
| <ul style="list-style-type: none"> <li>· <b>IATA</b></li> </ul>                       | AEROSOLS, flammable |
| <ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> </ul> |                     |
| <ul style="list-style-type: none"> <li>· <b>DOT</b></li> </ul>                        |                     |
|    |                     |
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> </ul>                      | 2.1 Gases           |
| <ul style="list-style-type: none"> <li>· <b>Label</b></li> </ul>                      | 2.1                 |
| <ul style="list-style-type: none"> <li>· <b>ADR</b></li> </ul>                        |                     |
|    |                     |
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> </ul>                      | 2.5F Gases          |
| <ul style="list-style-type: none"> <li>· <b>Label</b></li> </ul>                      | 2.1                 |

(Contd. on page 8)

# Safety Data Sheet


acc. to OSHA HCS

Printing date 06/27/2023

Reviewed on 06/27/2023

**Trade name: Muc-Off Motorcycle Protectant**

(Contd. of page 7)

· <b>ADN</b>	
· <b>ADN/R Class:</b>	2 5F
-----	
· <b>IMDG, IATA</b>	
	
· <b>Class</b>	2.1 Gases
· <b>Label</b>	2.1
-----	
· <b>Packing group</b>	
· <b>DOT, ADR, IMDG, IATA</b>	Void
-----	
· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
-----	
· <b>Special precautions for user</b>	Warning: Gases
· <b>Hazard identification number (Kemler code): -</b>	
· <b>EMS Number:</b>	F-D,S-U
· <b>Stowage Code</b>	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.
· <b>Segregation Code</b>	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.
-----	
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
-----	
· <b>Transport/Additional information:</b>	
-----	
· <b>ADR</b>	
· <b>Excepted quantities (EQ)</b>	Code: E0 Not permitted as Excepted Quantity
-----	
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E0 Not permitted as Excepted Quantity
-----	
· <b>UN "Model Regulation":</b>	UN 1950 AEROSOLS, 2.1

## 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
· Sara

· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

(Contd. on page 9)

US



# Safety Data Sheet

## acc. to OSHA HCS

Printing date 06/27/2023

Reviewed on 06/27/2023

**Trade name: Muc-Off Motorcycle Protectant**

(Contd. of page 8)

**· TSCA (Toxic Substances Control Act):**

64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic <0.1% Benzene (IP 346 < 3%)	ACTIVE
74-98-6	propane	ACTIVE
106-97-8	butane (containing < 0.1% butadiene (203-450-8), Note K)	ACTIVE
75-28-5	isobutane (containing < 0,1 % butadiene (203-450-8), Note K)	ACTIVE

**· Hazardous Air Pollutants**

None of the ingredients is listed.

**· Proposition 65**
**· Chemicals known to cause cancer:**

None of the ingredients is listed.

**· Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

**· Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

**· Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

**· Cancerogenity categories**
**· EPA (Environmental Protection Agency)**

None of the ingredients is listed.

**· TLV (Threshold Limit Value)**

None of the ingredients is listed.

**· MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

**· NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

**· National regulations:**
**· Disturbance regulations:**

Class	Share in %
NK	75-<100

**· 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.

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

Fysiske og kjemiske egenskaper: Klassifiseringen er basert på resultatene av blandingene som er testet.  
Helsefarer, Miljøfarer: Metoden for klassifisering av blandinger basert på blandingens bestanddeler (sumformel).

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

**· Contact:** info@muc-off.com

**· Date of preparation / last revision** 06/27/2023

**· Abbreviations and acronyms:**

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  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
EINECS: European Inventory of Existing Commercial Chemical Substances

(Contd. on page 10)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/27/2023

Reviewed on 06/27/2023

**Trade name: Muc-Off Motorcycle Protectant**

(Contd. of page 9)

ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Flammable Aerosols 1: Aerosols – Category 1  
Aspiration Hazard 1: Aspiration hazard – Category 1

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