



# MUC-OFF ANTI FOG

Product Reference code: 214-1

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Issue date: 09/27/2023

Version: 1.00

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Name : MUC-OFF ANTI FOG 214-1

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : No additional information

#### 1.3. Supplier

Name 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  
Telephone Tel: +44(0)1202 307790  
E-mail E-mail: info@muc-off.com

#### 1.4. Emergency telephone number

No additional information available  
Emergency number CHEMTREC: 1-800-424-9300 24HR

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Flammable liquids, Category 4 Combustible liquid

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labelling

Signal word (GHS US) : Warning  
Hazard statements (GHS US) : Combustible liquid  
Precautionary statements (GHS US) : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Wear protective gloves/protective clothing/eye protection/face protection.  
In case of fire: Use media other than water to extinguish.  
Store in a well-ventilated place. Keep cool.  
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

#### 2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : No more data.

#### 2.4. Unknown acute toxicity (GHS US)

1.7% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)  
1.7% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Vapours))

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

| Name  | Product identifier | %      | GHS US classification                                       |
|---|--------------------|--------|---|
| propan-2-ol; isopropyl alcohol; isopropanol             | (CAS-No.) 67-63-0  | 1 – 10 | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336 |
| 1-methoxy-2-propanol; monopropylene glycol methyl ether | (CAS-No.) 107-98-2 | 1 – 5  | Flam. Liq. 3, H226<br>STOT SE 3, H336                       |

Full text of hazard classes and H-statements : see section 16

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

|                                       |  |
|---------------------------------------|--|
| First-aid measures general            | : Remove soiled clothing.  |
| First-aid measures after inhalation   | : Allow affected person to breathe fresh air. Upon irritation of the respiratory tract or mucous membranes (e.g. coughing), indisposition or prolonged exposure, consult a doctor. |
| First-aid measures after skin contact | : Wash contaminated skin areas thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.  |
| First-aid measures after eye contact  | : Rinse immediately with plenty of water, also under the eyelids. If symptoms, consult ophthalmologist.  |
| First-aid measures after ingestion    | : Clean mouth with water and drink plenty of water afterwards. If you feel unwell, seek medical advice.  |

#### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : No information available.

#### 4.3. Immediate medical attention and special treatment, if necessary

No information available.

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

|                                |  |
|--------------------------------|--|
| Suitable extinguishing media   | : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2), water spray, sand, earth. |
| Unsuitable extinguishing media | : high volume water jet.   |

#### 5.2. Specific hazards arising from the chemical

|                  |  |
|------------------|--|
| Fire hazard      | : Vapours are heavier than air and spread at the soil. Pay attention to flashback. |
| Explosion hazard | : Large quantities: Vapours may form explosive mixture with air.                   |

#### 5.3. Special protective equipment and precautions for fire-fighters

|                                |  |
|--------------------------------|--|
| Protection during firefighting | : In the event of fire and/or explosion, do not breathe in fumes. Wear self-contained breathing apparatus for fire fighting, if necessary.                 |
| Other information              | : Water mist may be used to cool closed containers. Contaminated extinguishing water and soil must be disposed of in accordance with official regulations. |

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin and eyes. Slipping hazard due to leakage.

##### 6.1.1. For non-emergency personnel

Protective equipment : No additional information available.

##### 6.1.2. For emergency responders

Protective equipment : No additional information available.

#### 6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.

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### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Large quantities: Soak up with inert absorbent material. Dispose of the material collected according to regulations.

### 6.4. Reference to other sections

Suitable protective equipment: see section 8. Refer to safety instructions (see sections 7 and 8). Dispose of as described in section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : No special action required if used correctly. Do not empty container with pressure, it is not a pressurised container.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store sealed in the original container. Keep containers tightly closed in a cool, well-ventilated place. Protect from heat and direct sunlight.

Heat and ignition sources : Keep away from naked flames/heat.

Information on mixed storage : Store away from strong oxidizers, strong bases, strong acids.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)              |                                |  |
|--|--------------------------------|--|
| DNEL   | DNEL                           | 500 mg/m <sup>3</sup>  |
| ACGIH  | Local name                     | 2-Propanol   |
| ACGIH  | ACGIH OEL TWA [ppm]            | 200 ppm  |
| ACGIH  | ACGIH OEL STEL [ppm]           | 400 ppm  |
| ACGIH  | Remark (ACGIH)                 | TLV® Basis: Eye & URT irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI |
| ACGIH  | Regulatory reference           | ACGIH 2023   |
| OSHA   | OSHA PEL TWA [1]               | 980 mg/m <sup>3</sup>  |
| OSHA   | OSHA PEL TWA [2]               | 400 ppm  |
| OSHA   | Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1   |
| 1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2) |                                |  |
| DNEL   | DNEL                           | 369 mg/m <sup>3</sup>  |
| ACGIH  | Local name                     | 1-Methoxy-2-propanol   |
| ACGIH  | ACGIH OEL TWA [ppm]            | 50 ppm   |
| ACGIH  | ACGIH OEL STEL [ppm]           | 100 ppm  |
| ACGIH  | Remark (ACGIH)                 | TLV® Basis: Eye & URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)                  |
| ACGIH  | Regulatory reference           | ACGIH 2023   |

### 8.2. Appropriate engineering controls

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

No special measures are necessary when normal, good hygiene is practised. In the case of lengthy skin contact: Protective gloves made of PVC

#### Eye protection:

Not required. In case of risk of splashing, wear protective glasses.

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### Skin and body protection:

Not required under normal use.

### Respiratory protection:

Not required under normal use.

### Other information:

Handle in accordance with good industrial hygiene and safety practice.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|   |   |
|---|---|
| Physical state                                  | : Liquid  |
|   | : yellowish-orange  |
|   | : Mixture contains one or more component(s) which have the following odour: |
| Odour threshold                                 | : No data available   |
| pH  | : ≈ 7.5   |
| Melting point                                   | : No data available   |
| Freezing point                                  | : No data available   |
| Boiling point                                   | : No data available   |
| Flash point                                     | : > 90 °C   |
| Relative evaporation rate (butylacetate=1)      | : No data available   |
| Flammability                                    | : No data available   |
| Vapour pressure                                 | : < 0.02 hPa 20 °C  |
| Relative vapour density at 20°C                 | : No data available   |
| Relative density                                | : 1.01  |
| Solubility                                      | : completely miscible with: water.  |
| Partition coefficient n-octanol/water (Log Pow) | : No data available   |
| Auto-ignition temperature                       | : No data available   |
| Decomposition temperature                       | : No data available   |
| Viscosity, kinematic                            | : 4.1 mm <sup>2</sup> /s  |
| Viscosity, dynamic                              | : No data available   |
| Explosive limits                                | : No data available   |
| Explosive properties                            | : No data available   |
| Oxidising properties                            | : No data available   |

### 9.2. Other information

|             |          |
|-------------|----------|
| VOC content | : ≤ 10 % |
|-------------|----------|

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under proper storage and handling.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known.

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

No additional information available

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### 10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

| <b>propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)</b>              |   |
|---|---|
| LD50 oral rat   | 5840 mg/kg ECHA Registration Dossier 06.2019  |
| LD50 dermal rat   | 12800 mg/kg   |
| LD50 dermal rabbit  | 13900 mg/kg ECHA Registration Dossier 06.2019   |
| ATE US (oral)   | 4396 mg/kg bodyweight   |
| ATE US (dermal)   | 12800 mg/kg bodyweight  |
| ATE US (vapours)  | 72.6 mg/l/4h  |
| ATE US (dust,mist)  | 46600 mg/l/4h   |
| <b>1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)</b> |   |
| LD50 dermal rat   | > 2000 mg/kg bodyweight Animal: rat, Guideline: EU Method B.3 (Acute Toxicity (Dermal)) |
| LD50 dermal rabbit  | 11000 mg/kg   |
| ATE US (dermal)   | 11000 mg/kg bodyweight  |

Skin corrosion/irritation : Not classified  
pH: ≈ 7.5

Serious eye damage/irritation : Not classified  
pH: ≈ 7.5

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

| <b>propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)</b> |                      |
|--|----------------------|
| IARC group   | 3 - Not classifiable |

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

| <b>1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)</b> |  |
|---|--|
| LOAEL (oral, rat, 90 days)  | 2757 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents) |
| NOAEL (oral, rat, 90 days)  | 919 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)  |
| NOAEL (dermal, rat/rabbit, 90 days)                                       | > 1000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)                   |

Aspiration hazard : Not classified

Symptoms/effects : No information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

| <b>propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)</b> |   |
|--|---|
| LC50 - Fish [1]  | 1400 mg/l   |
| EC50 - Crustacea [1]   | 13299 mg/l  |
| EC50 - Other aquatic organisms [1]                           | 13299 mg/l waterflea                                    |
| LC50 - Fish [2]  | 9640 mg/l Test organisms (species): Pimephales promelas |
| EC50 - Other aquatic organisms [2]                           | > 1000 mg/l   |
| ErC50 algae  | > 1000 mg/l   |

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### 1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)

|                                    |  |
|------------------------------------|--|
| LC50 - Fish [1]                    | 4600 – 10000   |
| EC50 - Crustacea [1]               | > 500 mg/l   |
| EC50 - Other aquatic organisms [1] | 2954 mg/l Test organisms (species): other aquatic crustacea: |
| EC50 - Other aquatic organisms [2] | > 500 mg/l   |
| ErC50 algae                        | > 1000 mg/l  |

### 12.2. Persistence and degradability

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|                               |  |
|-------------------------------|--|
| Persistence and degradability | The surface active substances of the product correspond to the requirements of the EC Detergent Regulation (EC/648/2004) concerning ultimate aerobic biodegradation of tensides for washing and cleaning agents. |
|-------------------------------|--|

### 12.3. Bioaccumulative potential

#### propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)

|   |        |
|---|--------|
| Partition coefficient n-octanol/water (Log Pow)                           | 0.05   |
| <b>1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)</b> |        |
| Partition coefficient n-octanol/water (Log Pow)                           | -0.437 |

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Other adverse effects : No additional information available.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Additional information : Disposal in accordance with the official regulations.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Not applicable

### Transportation of Dangerous Goods

Not applicable

### Transport by sea

### Air transport

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

| Name  | CAS-No.  | Listing | Commercial status | Flags |
|---|----------|---------|-------------------|-------|
| propan-2-ol; isopropyl alcohol; isopropanol | 67-63-0  | Present | Active            |       |
| Sodium diisooctyl sulphosuccinate           | 577-11-7 | Present | Active            |       |

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| Name  | CAS-No.   | Listing | Commercial status | Flags |
|---|-----------|---------|-------------------|-------|
| fat alcohol polyglycoether                              | 9043-30-5 | Present | Active            | XU    |
| 1-methoxy-2-propanol; monopropylene glycol methyl ether | 107-98-2  | Present | Active            |       |

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

propan-2-ol; isopropyl alcohol; isopropanol

CAS-No. 67-63-0

1 – 10%

### 15.2. International regulations

#### CANADA

propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)

Listed on the Canadian DSL (Domestic Substances List)

Sodium diisooctyl sulphosuccinate (577-11-7)

Listed on the Canadian DSL (Domestic Substances List)

fat alcohol polyglycoether (9043-30-5)

Listed on the Canadian DSL (Domestic Substances List)

1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)

Listed on the Canadian DSL (Domestic Substances List)

#### EU-Regulations

No additional information available

#### National regulations

propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Sodium diisooctyl sulphosuccinate (577-11-7)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

## SECTION 16: Other information

Other information

: The information is based on present levels of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. Existing laws and regulations are the responsibility of the recipient of our products.

Abbreviations and acronyms:

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|  |   |
|--|---|
|  | n.a. = not applicable; n.d.= not determined |
|--|---|

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*