

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

**1.1 Product identifier**

**Trade name:** MOLY DRY FILM LUBRICANT

**Article number:** R218

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

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

**Manufacturer/Supplier:** Tygris Industrial  
Unit 31  
Kyle Road Industrial Estate  
Irvine  
Ayshire  
KA12 8LE  
Tel +44 (0) 1294 311 066  
Fax +44 (0) 1294 277 115  
Email [technical@tygrisindustrial.com](mailto:technical@tygrisindustrial.com)

**Further information obtainable from:** Technical Department

**1.4 Emergency telephone number:** Tel +44 (0) 1294 311 066

## 2. Hazards identification

### 2.1. Classification of the substance or mixture

|                                      |                               |  |
|--------------------------------------|-------------------------------|--|
| <b>Classification (EC 1272/2008)</b> | Physical and Chemical Hazards | Flam. Aerosol 1 - H222                           |
|                                      | Human health                  | EUH066; Eye Irrit. 2 - H319;<br>STOT SE 3 - H336 |
|                                      | Environment                   | Aquatic Chronic 3 - H412                         |

**Classification (1999/45/EEC)** Xi; R36. F+; R12. R52/53, R66, R67.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

### 2.2. Label elements

**Label In Accordance With (EC) No. 1272/2008**



**Signal Word**

Danger

**Hazard Statements**

H222 Extremely flammable aerosol.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.  
H412 Harmful to aquatic life with long lasting effects.

**Precautionary Statements**

P102 Keep out of reach of children.  
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P261 Avoid breathing vapour/spray.  
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+313 If eye irritation persists: Get medical advice/attention.  
P501 Dispose of contents/container in accordance with local regulations.

**Supplementary Precautionary Statements**

P211 Do not spray on an open flame or other ignition source.  
P251 Pressurized container: Do not pierce or burn, even after use.  
P264 Wash contaminated skin thoroughly after handling.  
P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P332+313 If skin irritation occurs: Get medical advice/attention.  
P403+233 Store in a well-ventilated place. Keep container tightly closed.  
P410+412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

**Supplemental label information**

EUH066 Repeated exposure may cause skin dryness or cracking.

### 2.3. Other hazards

**3. Composition/information on ingredients**
**3.2. Mixtures**

|   |   |
|---|---|
| 1,2,4-TRIMETHYLBENZENE<br>Index No.<br>CAS-No.: 95-63-6<br>Classification (EC 1272/2008)<br>Flam. Liq. 3 - H226<br>Acute Tox. 4 - H332<br>Skin Irrit. 2 - H315<br>Eye Irrit. 2 - H319<br>STOT SE 3 - H335<br>Aquatic Chronic 2 - H411 | < 1%<br>REACH Registration No.<br>EC No.: 202-436-9<br>Classification (67/548/EEC)<br>R10<br>Xn;R20<br>Xi;R36/37/38<br>N;R51/53 |
| 1-METHOXY-2-PROPANOL<br>Index No.<br>CAS-No.: 107-98-2<br>Classification (EC 1272/2008)<br>Flam. Liq. 3 - H226<br>STOT SE 3 - H336  | 1-5%<br>REACH Registration No.<br>EC No.: 203-539-1<br>Classification (67/548/EEC)<br>R10<br>R67                                |
| 2-BUTOXYETHANOL<br>Index No.<br>CAS-No.: 111-76-2<br>Classification (EC 1272/2008)<br>Acute Tox. 4 - H302<br>Acute Tox. 4 - H312<br>Acute Tox. 4 - H332<br>Skin Irrit. 2 - H315<br>Eye Irrit. 2 - H319                                | 1-5%<br>REACH Registration No.<br>EC No.: 203-905-0<br>Classification (67/548/EEC)<br>Xn;R20/21/22<br>Xi;R36/38                 |
| ACETONE<br>Index No.<br>CAS-No.: 67-64-1<br>Classification (EC 1272/2008)<br>Flam. Liq. 2 - H225<br>EUH066<br>Eye Irrit. 2 - H319<br>STOT SE 3 - H336   | 1-5%<br>REACH Registration No.<br>EC No.: 200-662-2<br>Classification (67/548/EEC)<br>F;R11<br>Xi;R36<br>R66<br>R67             |
| BUTANONE<br>Index No.<br>CAS-No.: 78-93-3<br>Classification (EC 1272/2008)<br>Flam. Liq. 2 - H225<br>EUH066<br>Eye Irrit. 2 - H319<br>STOT SE 3 - H336  | < 1%<br>REACH Registration No.<br>EC No.: 201-159-0<br>Classification (67/548/EEC)<br>F;R11<br>Xi;R36<br>R66<br>R67             |

|                               |                             |
|-------------------------------|-----------------------------|
| DIMETHYL ETHER                | 60-100%                     |
| Index No.                     | REACH Registration No.      |
| CAS-No.: 115-10-6             | EC No.: 204-065-8           |
| Classification (EC 1272/2008) | Classification (67/548/EEC) |
| Flam. Gas 1 - H220            | F+;R12                      |
| ETHANOL                       | 1-5%                        |
| Index No.                     | REACH Registration No.      |
| CAS-No.: 64-17-5              | EC No.: 200-578-6           |
| Classification (EC 1272/2008) | Classification (67/548/EEC) |
| Flam. Liq. 2 - H225           | F;R11                       |
| ETHYL ACETATE                 | 10-30%                      |
| Index No.                     | REACH Registration No.      |
| CAS-No.: 141-78-6             | EC No.: 205-500-4           |
| Classification (EC 1272/2008) | Classification (67/548/EEC) |
| Flam. Liq. 2 - H225           | F;R11                       |
| EUH066                        | Xi;R36                      |
| Eye Irrit. 2 - H319           | R66                         |
| STOT SE 3 - H336              | R67                         |
| MESITYLENE                    | < 1%                        |
| Index No.                     | REACH Registration No.      |
| CAS-No.: 108-67-8             | EC No.: 203-604-4           |
| Classification (EC 1272/2008) | Classification (67/548/EEC) |
| Flam. Liq. 3 - H226           | R10                         |
| STOT SE 3 - H335              | Xi;R37                      |
| Aquatic Chronic 2 - H411      | N;R51/53                    |
| METHANOL                      | < 1%                        |
| Index No.                     | REACH Registration No.      |
| CAS-No.: 67-56-1              | EC No.: 200-659-6           |
| Classification (EC 1272/2008) | Classification (67/548/EEC) |
| Flam. Liq. 2 - H225           | F;R11                       |
| Acute Tox. 3 - H301           | T;R23/24/25,R39/23/24/25    |
| Acute Tox. 3 - H311           |                             |
| Acute Tox. 3 - H331           |                             |
| STOT SE 1 - H370              |                             |
| PROPAN-2-OL                   | < 1%                        |
| Index No.                     | REACH Registration No.      |
| CAS-No.: 67-63-0              | EC No.: 200-661-7           |
| Classification (EC 1272/2008) | Classification (67/548/EEC) |
| Flam. Liq. 2 - H225           | F;R11                       |
| Eye Irrit. 2 - H319           | Xi;R36                      |
| STOT SE 3 - H336              | R67                         |

|   |                             |
|---|-----------------------------|
| SOLVENT NAPHTHA(PETROLEUM), LIGHT AROM. | 1-5%                        |
| Index No.                               | REACH Registration No.      |
| CAS-No.: 64742-95-6                     | EC No.:                     |
| Classification (EC 1272/2008)           | Classification (67/548/EEC) |
| Flam. Liq. 3 - H226                     | Xn;R65.                     |
| EUH066                                  | Xi;R37.                     |
| STOT SE 3 - H335, H336                  | N;R51/53.                   |
| Asp. Tox. 1 - H304                      | R10,R66,R67.                |
| Aquatic Chronic 2 - H411                |                             |
| XYLENE                                  | < 1%                        |
| Index No.                               | REACH Registration No.      |
| CAS-No.: 1330-20-7                      | EC No.: 215-535-7           |
| Classification (EC 1272/2008)           | Classification (67/548/EEC) |
| Flam. Liq. 3 - H226                     | R10                         |
| Acute Tox. 4 - H312                     | Xn;R20/21                   |
| Acute Tox. 4 - H332                     | Xi;R38                      |
| Skin Irrit. 2 - H315                    |                             |
| Asp. Tox. 1 - H304                      |                             |

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16

## 4. First aid measures

### 4.1. Description of first aid measures

|                            |  |
|----------------------------|--|
| <b>General information</b> | Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.   |
| <b>Inhalation</b>          | Move the exposed person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep the affected person warm and at rest. Get prompt medical attention.     |
| <b>Ingestion</b>           | DO NOT INDUCE VOMITING! Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Get medical attention if any discomfort continues.  |
| <b>Skin contact</b>        | Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.  |
| <b>Eye contact</b>         | Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues. |

### 4.2. Most important symptoms and effects, both acute and delayed

### 4.3. Indication of any immediate medical attention and special treatment needed

## 5. Firefighting measures

### 5.1 Extinguishing Media

**Extinguishing media** Use: Powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

### 5.2. Special hazards arising from the substance or mixture

**Unusual Fire & Explosion Hazards** Aerosol cans may explode in a fire.

### 5.3. Advice for firefighters

**Special Fire Fighting Procedures** Containers close to fire should be removed or cooled with water. Use water to keep fire exposed containers cool and disperse vapours.

## 6. Accidental release measures

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

### 6.2. Environmental precautions

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

Wear necessary protective equipment. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Let evaporate. Keep out of confined spaces because of explosion risk. If leakage cannot be stopped, evacuate area.

### 6.4. Reference to other sections

## 7. Handling and storage

### 7.1 Precautions for safe handling

Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level.

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

Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C.

### 7.3. Specific end use(s)

**8. Exposure controls/personal protection**
**8.1. Control parameters**

| Name                 | STD | TWA - 8 Hrs  |                | STEL - 15 Min |                |
|----------------------|-----|--------------|----------------|---------------|----------------|
| 1-METHOXY-2-PROPANOL | WEL | 100 ppm (Sk) | 375 mg/m3 (Sk) | 150 ppm (Sk)  | 560 mg/m3 (Sk) |
| 2-BUTOXYETHANOL      | WEL | 25 ppm (Sk)  |                | 50 ppm (Sk)   |                |
| ACETONE              |     |              |                | 500 ppm       | 1210 mg/m3     |
| BUTANONE             | WEL | 200 ppm (Sk) | 600 mg/m3 (Sk) | 300 ppm(Sk)   | 899 mg/m3 (Sk) |
| DIMETHYL ETHER       | WEL | 400 ppm      | 766 mg/m3      | 500 ppm       | 958 mg/m3      |
| ETHANOL              | WEL | 1000 ppm     | 1920 mg/m3     |               |                |
| ETHYL ACETATE        | WEL | 200          |                | 400           |                |
| METHANOL             | WEL | 200 ppm (Sk) | 266 mg/m3 (Sk) | 250 ppm (Sk)  | 333 mg/m3 (Sk) |
| PROPAN-2-OL          | WEL | 400 ppm      | 999 mg/m3      | 500 ppm       | 1250 mg/m3     |
| XYLENE               | WEL | 50 ppm (Sk)  | 220mg/m3 (Sk)  | 100 ppm (Sk)  | 441 mg/m3 (Sk) |

WEL = Workplace Exposure Limits

**8.2. Exposure controls**
**Protective equipment**

**Engineering measures**

Provide adequate general and local exhaust ventilation.

**Respiratory equipment**

No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit. Use chemical cartridge protection with appropriate cartridge.

**Hand protection**

Use protective gloves.

**Eye protection**

Wear approved chemical safety goggles where eye exposure is reasonably probable. Use approved safety goggles or face shield.

**Other Protection**

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

**Hygiene measures**

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

## 9. Physical and chemical properties

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

|                                      |                    |
|--------------------------------------|--------------------|
| <b>Appearance</b>                    | Aerosol            |
| <b>Colour</b>                        | Black              |
| <b>Odour</b>                         | Characteristic.    |
| <b>Solubility</b>                    | Insoluble in water |
| <b>Flammability Limit - Lower(%)</b> | 3.0                |
| <b>Flammability Limit - Upper(%)</b> | 18.6               |

### 9.2. Other information

## 10. Stability and reactivity

### 10.1. Reactivity

### 10.2. Chemical stability

Stable under normal temperature conditions.

### 10.3. Possibility of hazardous reactions

### 10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid contact with: Strong oxidising agents. Strong alkalis. Strong mineral acids.

### 10.5. Incompatible materials

### 10.6. Hazardous decomposition products

Fire creates: Vapours/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## 11. Toxicological information

### 11.1. Information on toxicological effects

|                       |   |
|-----------------------|---|
| <b>Inhalation</b>     | May cause irritation to the respiratory system. Vapours may cause headache, fatigue, dizziness and nausea. Prolonged inhalation of high concentrations may damage respiratory system.   |
| <b>Ingestion</b>      | May cause discomfort if swallowed. May cause stomach pain or vomiting. Gastrointestinal symptoms, including upset stomach.  |
| <b>Skin contact</b>   | Prolonged or repeated exposure may cause severe irritation. Acts as a defatting agent on skin. May cause cracking of skin, and eczema.<br>May cause allergic contact eczema. May cause sensitisation by skin contact. Irritating to skin. |
| <b>Eye contact</b>    | Irritating to eyes. May cause chemical eye burns.   |
| <b>Route of entry</b> | Inhalation. Skin and/or eye contact.  |



## 12. Ecological information

### Ecotoxicity

Dangerous for the environment if discharged into watercourses.

### 12.1. Toxicity

### 12.2. Persistence and degradability

### 12.3. Bioaccumulative potential

### 12.4. Mobility in soil

### 12.5. Results of PBT and vPvB assessment

### 12.6. Other adverse effects

## 13. Disposal considerations

### 13.1. Waste treatment methods

Empty containers must not be burned because of explosion hazard. Dispose of waste and residues in accordance with local authority requirements.

## 14. Transport information

### 14.1. UN number

UN No. (ADR/RID/ADN) 1950

UN No. (IMDG) 1950

UN No. (ICAO) 1950

### 14.2. UN proper shipping name

Proper Shipping Name AEROSOLS

### 14.3. Transport hazard class(es)

ADR/RID/ADN Class 2

ADR/RID/ADN Class Class 2: Gases

ADR Label No. 2.1

IMDG Class 2.1

ICAO Class/Division 2.1

### Transport Labels



### 14.4. Packing group

ADR/RID/ADN Packing group Not Applicable

IMDG Packing group Not Applicable

ICAO Packing group Not applicable.

### 14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant No.

### 14.6. Special precautions for user

EMS F-D, S-U

Tunnel Restriction Code (D)

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

## 15. Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

|                                  |  |
|----------------------------------|--|
| <b>Uk Regulatory References</b>  | The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002.<br>The Control of Substances Hazardous to Health Regulations 2002. |
| <b>Statutory Instruments</b>     | The Control of Substances Hazardous to Health Regulations 2002.<br>The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. |
| <b>Approved Code Of Practice</b> | Classification and Labelling of Substances and Preparations Dangerous for Supply.  |
| <b>Guidance Notes</b>            | Workplace Exposure Limits EH40.<br>Introduction to Local Exhaust Ventilation HS(G)37.<br>CHIP for everyone HSG(108).                             |

### 15.2. Chemical safety assessment

## 16. Other information

|                                  |  |
|----------------------------------|--|
| <b>Risk Phrases In Full</b>      | R12 Extremely flammable.<br>R10 Flammable.<br>R20/21 Harmful by inhalation and in contact with skin.<br>R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.<br>R20 Harmful by inhalation.<br>R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.<br>R65 Harmful: may cause lung damage if swallowed.<br>R11 Highly flammable<br>R36/38 Irritating to eyes and skin.<br>R36/37/38 Irritating to eyes, respiratory system and skin.<br>R36 Irritating to eyes.<br>R37 Irritating to respiratory system.<br>R38 Irritating to skin.<br>R66 Repeated exposure may cause skin dryness or cracking.<br>R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.<br>R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.<br>R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.<br>R67 Vapours may cause drowsiness and dizziness. |
| <b>Hazard Statements In Full</b> | H370 Causes damage to organs <<Organs>>.<br>H319 Causes serious eye irritation.<br>H315 Causes skin irritation.<br>H222 Extremely flammable aerosol.<br>H220 Extremely flammable gas.<br>H226 Flammable liquid and vapour.<br>H332 Harmful if inhaled.<br>H302 Harmful if swallowed.<br>H312 Harmful in contact with skin.<br>H412 Harmful to aquatic life with long lasting effects.<br>H225 Highly flammable liquid and vapour.<br>H304 May be fatal if swallowed and enters airways.<br>H336 May cause drowsiness or dizziness.<br>H335 May cause respiratory irritation.<br>EUH066 Repeated exposure may cause skin dryness or cracking.<br>H331 Toxic if inhaled.<br>H301 Toxic if swallowed.<br>H311 Toxic in contact with skin.<br>H411 Toxic to aquatic life with long lasting effects.  |

**DISCLAIMER**

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.