

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

1.1 Product identifier

Trade name: **MolyGold ARMA M1**

Article number: 055201MLG

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

No further relevant information available.

Application of the substance / the mixture

Spray
Lubricant

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
MolyGold Lubricants GmbH
Member of ECCO GROUP
Salzsteinstraße 4
D-82402 Seeshaupt
Tel.: +49-(0)8801-9710
Fax: +49-(0)8801-9730
www.molygold.com
info@molygold.com

Further information obtainable from: sd@molygold.com

1.4 Emergency telephone number: Please call toxicological emergency in case of need.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

 GHS02


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

 GHS07

Acute Tox. 4, H332. Harmful if inhaled.

Asp. Tox. 1, H304. May be fatal if swallowed and enters airways.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

 F+; Extremely flammable

R12: Extremely flammable.

Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Warning! Pressurised container.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms

 
GHS02 GHS07

Signal word Danger

Hazard-determining components of labelling:

paraffin base oil
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics
Hydrocarbons, C10-C13, isoalkanes, cyclics, < 2% aromatics

Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
H332 Harmful if inhaled.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.

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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.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

Description: Pressurized preparation of lubricants into solvents

Dangerous components:

CAS: 106-97-8 EINECS: 203-448-7 Reg.nr.: 01-2119474691-32-	Propellant butane F+ R12 Flam. Gas 1, H220; Press. Gas C, H280	25-50%
CAS: 64742-65-0 EINECS: 265-169-7 Reg.nr.: 01-2119471299-27	paraffin base oil Asp. Tox. 1, H304	10-25%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21	Propellant propane F+ R12 Flam. Gas 1, H220; Press. Gas C, H280	10-25%
EC number: 918-481-9 Reg.nr.: 01-2119457273-39-xxxx	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics Xn R65 R66 Asp. Tox. 1, H304	10-25%
EC number: 918-317-6 Reg.nr.: 01-2119474196-32-xxxx	Hydrocarbons, C10-C13, isoalkanes, cyclics, < 2% aromatics Xn R65 R66 Asp. Tox. 1, H304	10-25%
CAS: 67-63-0 EINECS: 200-661-7 Reg.nr.: 01-2119457558-25-xxxx	propan-2-ol Xi R36; F R11 R67 Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	≤2.5%

Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: Take affected persons out into the fresh air.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:

CO₂, sand, extinguishing powder. Do not use water.

Use fire extinguishing methods suitable to surrounding conditions.

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- For safety reasons unsuitable extinguishing agents: Water
- 5.2 Special hazards arising from the substance or mixture Do not breathe gases and smokes from fire
- 5.3 Advice for firefighters
- Protective equipment:
 - Mount respiratory protective device.
 - Wear fully protective suit.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
 - Wear protective equipment. Keep unprotected persons away.
 - Keep away from ignition sources.
- 6.2 Environmental precautions:
 - Do not allow to enter sewers/ surface or ground water.
 - Inform respective authorities in case of seepage into water course or sewage system.
- 6.3 Methods and material for containment and cleaning up:
 - Absorb liquid components with liquid-binding material.
- 6.4 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.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling
 - Open and handle receptacle with care.
 - Use only in well ventilated areas.
- Information about fire - and explosion protection:
 - Protect against electrostatic charges.
 - Keep respiratory protective device available.
 - 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.
 - Do not spray onto a naked flame or any incandescent material.
- 7.2 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 pressurised containers.
 - Prevent any seepage into the ground.
 - Information about storage in one common storage facility: Not required.
 - Further information about storage conditions: Protect from heat and direct sunlight.
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

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

8.1 Control parameters**Ingredients with limit values that require monitoring at the workplace:****106-97-8 Propellant butane (25-50%)**

WEL Short-term value: 1810 mg/m³, 750 ppm
Long-term value: 1450 mg/m³, 600 ppm
Care (if more than 0.1% of buta-1,3-diene)

67-63-0 propan-2-ol (≥2.5%)

WEL Short-term value: 1250 mg/m³, 500 ppm
Long-term value: 999 mg/m³, 400 ppm

- Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls**Personal protective equipment:****General protective and hygienic measures:**

- The usual precautionary measures are to be adhered to when handling chemicals.
- Do not inhale gases / fumes / aerosols.

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Protection of hands:

Protective gloves

Material of gloves

Nitrile rubber, NBR

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.

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

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****General Information****Appearance:**

- Form: Aerosol
- Colour: Light beige
- Odour: Characteristic
- Odour threshold: Not determined.

pH-value: Not determined.

Change in condition

- Melting point/Melting range: Undetermined.
- Boiling point/Boiling range: < -20 °C

Flash point: < -20 °C

Flammability (solid, gaseous): Not applicable.

Decomposition temperature: Not determined.

Self-igniting: Not determined.

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

Explosion limits:

- Lower: 1.4 Vol %
- Upper: 10.8 Vol %

Vapour pressure: Not determined.

Density at 20 °C: 0.717 g/cm³

Relative density: Not determined.

Vapour density: Not determined.

Evaporation rate: Not applicable.

Solubility in / Miscibility with water: Soluble in hydrocarbons. Insoluble.

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

Viscosity:

- Dynamic: Not determined.
- Kinematic: Not determined.

9.2 Other information: No further relevant information available.

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SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** Danger of sprays bursting because of high vapour pressure when heated.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Not applicable.
- **10.6 Hazardous decomposition products:**
Flammable gases/vapours
Hydrocarbons, CO, CO₂

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

LD/LC50 values relevant for classification:

Inhalative LC50/4 h 15.6 mg/l (Rat)

106-97-8 Propellant butane

Inhalative CL50 658 ppm (Rat) (4h)

64742-65-0 paraffin base oil

Oral	LD50	>5000 mg/kg (Rat)
Dermal	LD50	>5000 mg/kg (Rabbit)
Inhalative	LC50/4 h	5.53 mg/l (Rat)

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Oral	LD50	>5000 mg/kg (Rat)
Dermal	LD50	>5000 mg/kg (Rabbit)

67-63-0 propan-2-ol

Oral	LD50	5840 mg/kg (Rat)
Dermal	LD50	13900 mg/kg (Rabbit)
Inhalative	LC50/4 h	47.5 mg/l (Rat)

Primary irritant effect:

- **on the skin:** No irritant effects known
- **on the eye:** Weakly irritant
- **Sensitisation:** No sensitising effects known.

SECTION 12: Ecological information**12.1 Toxicity****Aquatic toxicity:****Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics**

CE50	1000 mg/l (Daphnia) (48h)
CE50r	1000 mg/l (Algae) (72h)
CL50-96H	1000 mg/l (Fish)

Hydrocarbons, C10-C13, isoalkanes, cyclics, <2% aromatics

CE50	>1000 mg/l (Daphnia) (48h)
CE50r	>1000 mg/l (Algae) (72h)
CL50-96H	>1000 mg/l (Fish) (OCDE 203)

67-63-0 propan-2-ol

Biodegradability	53 % (Biodegradability)
CE50	13299 mg/l (Daphnia) (48h)
CE50r	>100 mg/l (Algae) (72h)
CL50-96H	9640 mg/l (Fish)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.

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- **12.4 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 product to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue

15 01 04	metallic packaging
14 06 03*	other solvents and solvent mixtures

Uncleaned packaging:

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

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN1950
- **14.2 UN proper shipping name**
- **ADR** 1950 AEROSOLS
- **IMDG** AEROSOLS
- **IATA** AEROSOLS, flammable
- **14.3 Transport hazard class(es)**
- **ADR**
- **Class** 2 5F Gases.
- **Label** 2.1
- **IMDG, IATA**
- **Class** 2.1
- **Label** 2.1
- **14.4 Packing group**
- **ADR, IMDG, IATA** Void
- **14.5 Environmental hazards:**
- **Marine pollutant:** No
- **14.6 Special precautions for user** Warning: Gases.
- **Danger code (Kemler):** -
- **EMS Number:** F-D,S-U
- **14.7 Transport in bulk according to Annex II of MARPOL73/78 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

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according to 1907/2006/EC, Article 31

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· Exempted quantities (EQ)	Code: E0 Not permitted as Exempted Quantity
· UN "Model Regulation":	UN1950, AEROSOLS, 2.1

SECTION 15: Regulatory information· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**· **National regulations:**· **Technical instructions (air):**

Class	Share in %
NK	51.3

· **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 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.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

R11 Highly flammable.

R12 Extremely flammable.

R36 Irritating to eyes.

R65 Harmful; may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

· **Department issuing MSDS:** see item 1· **Abbreviations and acronyms:**

Flam. Gas 1: Flammable gases, Hazard Category 1

Flam. Aerosol 1: Flammable aerosols, Hazard Category 1

Press. Gas C: Gases under pressure: Compressed gas

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Acute Tox. 4: Acute toxicity, Hazard Category 4

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

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

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