

Safety data sheet

According to 1907/2006 EEC Article 31

Printing date: 20.04.2011

Version: 2

Revision: 20.04.2011

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

- **Product identifier**
- **Trade name:** JLM PTFE Dry Lube
- **Article number:** J04400
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation** Lubricant
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
GMS Lubricants B.V.
Walruskoog 3-5
NL-1822 BC Alkmaar
The Netherlands
Tel: +31(0)72 561 6464
E-mail: ihumphreys@gms.nl
- **Further information obtainable from:** Research & Development / E-mail: ihumphreys@gms.nl
- **Emergency telephone number:** During normal opening hours: Tel: +31(0)72 561 6464

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Aerosol 1 H222 Extremely flammable aerosol.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.
STOT SE 3 H336 May cause drowsiness or dizziness.

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



Xi; Irritant

R38: Irritating to skin.



F+; Extremely flammable

R12: Extremely flammable.



N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R67: Vapours may cause drowsiness and dizziness.

- **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! Pressurized container.

Has a narcotizing effect.

- **Classification system:**

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

(Contd. on page 2)

Safety data sheet

According to 1907/2006 EEC Article 31

Printing date: 20.04.2011

Version: 2

Revision: 20.04.2011

Trade name: JLM PTFE Dry Lube

(Contd. of page 1)

- **Label elements**

- **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

- **Code letter and hazard designation of product:**



Xi Irritant
F+ Extremely flammable
N Dangerous for the environment

- **Risk phrases:**

12 Extremely flammable.
38 Irritating to skin.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
67 Vapours may cause drowsiness and dizziness.

- **Safety phrases:**

2 Keep out of the reach of children.
16 Keep away from sources of ignition - No smoking.
23 Do not breathe fumes/aerosol.
29 Do not empty into drains.
46 If swallowed, seek medical advice immediately and show this container or label.
51 Use only in well-ventilated areas.

- **Special labelling of certain preparations:**

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

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

Buildup of explosive mixtures possible without sufficient ventilation.

- **Classification in accordance with Directive 75/324/EEC: Extremely flammable**

- **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:**

CAS: 64742-49-0 EINECS: 265-151-9	Naphtha (petroleum), hydrotreated light Xn R65; Xi R38; F R11; N R51/53 R67 Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	50-100%
CAS: 106-97-8 EINECS: 203-448-7	butane (containing < 0.1% butadiene (203-450-8)) F+ R12 Flam. Gas 1, H220; Press. Gas, H280	10-<25%
CAS: 74-98-6 EINECS: 200-827-9	propane F+ R12 Flam. Gas 1, H220; Press. Gas, H280	10-<25%

(Contd. on page 3)

GB

Safety data sheet

According to 1907/2006 EEC Article 31

Printing date: 20.04.2011

Version: 2

Revision: 20.04.2011

Trade name: JLM PTFE Dry Lube

(Contd. of page 2)

CAS: 64742-82-1 EINECS: 265-185-4	Naphtha (petroleum), hydrodesulfurized heavy Benzene < 0.1% Xn R65; N R51/53 R10-66-67 Asp. Tox. 1, H304	1.0-<2.5%
--------------------------------------	---	-----------

4 First aid measures

- **Description of first aid measures**
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **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

- **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.

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.
- **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.
Open and handle receptacle with care.
- **Information about fire - and explosion protection:**
Do not spray onto a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.

(Contd. on page 4)

Safety data sheet

According to 1907/2006 EEC Article 31

Printing date: 20.04.2011

Version: 2

Revision: 20.04.2011

Trade name: JLM PTFE Dry Lube

(Contd. of page 3)

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.

- **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:**

Keep receptacle tightly sealed.

Do not seal receptacle gas tight.

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 item 7.

- **Control parameters**

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

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

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)

74-98-6 propane

WEL	Short-term value: 3600 mg/m ³ , 2000 ppm
	Long-term value: 1800 mg/m ³ , 1000 ppm

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

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

- **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Use suitable respiratory protective device in case of insufficient ventilation.

Filter AX/P2

- **Protection of hands:**



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** Nitrile rubber, NBR

(Contd. on page 5)

Safety data sheet

According to 1907/2006 EEC Article 31

Printing date: 20.04.2011

Version: 2

Revision: 20.04.2011

Trade name: JLM PTFE Dry Lube

(Contd. of page 4)

- **Penetration time of glove material**

For the mixture of chemicals mentioned below the penetration time has to be at least 10 minutes (Permeation according to EN 374 Part 3: Level 1).

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

- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Use protective suit.

9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form:	Aerosol
Colour:	According to product specification
Odour:	Characteristic
Odour threshold:	Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	-44°C

- **Flash point:** -97°C

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

- **Ignition temperature:** 200°C

- **Decomposition temperature:** Not determined.

- **Self-igniting:** Product is not selfigniting.

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

- **Explosion limits:**

Lower:	0.8 Vol %
Upper:	10.9 Vol %

- **Vapour pressure at 20°C:** 4 Bar

Density at 20°C:	0.65 g/cm ³
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not applicable.

- **Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

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

- **Viscosity:**

Dynamic:	Not determined.
Kinematic:	Not determined.

- **Solvent content:**

Organic solvents:	97.8 %
-------------------	--------

(Contd. on page 6)

Safety data sheet

According to 1907/2006 EEC Article 31

Printing date: 20.04.2011

Version: 2

Revision: 20.04.2011

Trade name: JLM PTFE Dry Lube

(Contd. of page 5)

- | | |
|--------------------------|--|
| Solids content: | 1.2 % |
| Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity**
- **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 relevant for classification:**

64742-49-0 Naphtha (petroleum), hydrotreated light

Oral	LD50	4300-6000 mg/kg (rat)
Dermal	LD50	>3000 mg/kg (rabbit)
Inhalative	LC50/4h	>60 mg/l (rat)

64742-82-1 Naphtha (petroleum), hydrodesulfurized heavy Benzene < 0.1%

Dermal	LD50	>3160 mg/kg (rabbit)
--------	------	----------------------

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant

12 Ecological information

- **Toxicity**

- **Acquatic toxicity:**

64742-49-0 Naphtha (petroleum), hydrotreated light

LC50	35-37 mg/l (Fish)
------	-------------------

- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **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.
Also poisonous for fish and plankton in water bodies.

(Contd. on page 7)

Safety data sheet

According to 1907/2006 EEC Article 31

Printing date: 20.04.2011

Version: 2

Revision: 20.04.2011

Trade name: JLM PTFE Dry Lube

(Contd. of page 6)

- Toxic for aquatic organisms
- **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.

14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 2 5F Gases.
- **Danger code (Kemler):** -
- **UN-Number:** 1950
- **Packaging group:** -
- **Hazard label** 2.1
- **Special marking:** Symbol (fish and tree)
- **UN proper shipping name:** 1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS
- **Limited quantities (LQ)** 1L
- **Transport category** 2
- **Tunnel restriction code** D

- **Maritime transport IMDG:**



- **IMDG Class:** 2.1
- **UN Number:** 1950
- **Label** 2.1
- **Packaging group:** -
- **EMS Number:** F-D,S-U
- **Marine pollutant:** No
- **Proper shipping name:** AEROSOLS

- **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 2.1
- **UN/ID Number:** 1950
- **Label** 2.1
- **Packaging group:** -
- **Proper shipping name:** AEROSOLS, flammable

(Contd. on page 8)

GB

Safety data sheet

According to 1907/2006 EEC Article 31

Printing date: 20.04.2011

Version: 2

Revision: 20.04.2011

Trade name: JLM PTFE Dry Lube

(Contd. of page 7)

- **UN "Model Regulation":** UN1950, AEROSOLS, ENVIRONMENTALLY HAZARDOUS, 2.1
- **Special precautions for user** Warning: Gases.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
 - **National regulations:**
 - **Technical instructions (air):**
- | Class | Share in % |
|-------|------------|
| NK | 50-100 |
- **VOC-CH** 97.79 %
 - **VOC-EU** 635.6 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.
- H280 Contains gas under pressure; may explode if heated.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H336 May cause drowsiness or dizziness.
- H411 Toxic to aquatic life with long lasting effects.
- R10 Flammable.
- R11 Highly flammable.
- R12 Extremely flammable.
- R38 Irritating to skin.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 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:** Research & Development

- **Contact:** Ian Humphreys

- **Abbreviations and acronyms:**

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
- ICAO: International Civil Aviation Organization
- ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent

- **Sources** st