

Revision: 08.04.2021 Printing date: 08.04.2021

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

· 1.1 Product identifier

· Trade name: JLM GDI Injector Cleaner

· Article number: J03190

- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Application of the substance / the mixture Cleaner solvent
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

JLM Lubricants

Schiphol Boulevard 127

1118 BG Schiphol

The Netherlands

Tel: +31 (0) 20 201 4995

- · Further information obtainable from: Research & Development: info@jlmlubricants.com ·
- **1.4 Emergency telephone number:** During normal business hours: Tel: +31 (0) 20 201 4995

SECTION 2: Hazards identification

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



flame

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



corrosion

Causes severe skin burns and eye damage. Skin Corr. 1B H314

Eye Dam. 1 Causes serious eye damage. H318



STOT SE 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

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

- · 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

GHS05

GHS07

- · Signal word Danger
- · Hazard-determining components of labelling:

ammonia

Hydrocarbons, C9, aromatics

1-methoxy-2-propanol

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· Hazard statements

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

H314 Causes severe skin burns and eye damage.

H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

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

P251 Do not pierce or burn, even after use.

P260 Do not breathe spray.

P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves / eye protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P403 Store in a well-ventilated place.

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 Mixtures

· Description: Cleansing agent

· Dangerous components:		
CAS: 107-98-2 EINECS: 203-539-1 Reg.nr.: 01-2119457435-35	1-methoxy-2-propanol Flam. Liq. 3, H226; STOT SE 3, H336	10-<25%
CAS: 128601-23-0 EC number: 918-668-5 Reg.nr.: 01-2119455851-35	Hydrocarbons,C9,aromatics Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H335-H336	10-<25%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21	propane Flam. Gas 1A, H220; Press. Gas (Comp.), H280	2.5-<10%
CAS: 111-76-2 EINECS: 203-905-0 Reg.nr.: 01-2119475108-36	2-butoxyethanol Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	2.5-<10%
CAS: 1336-21-6 EINECS: 215-647-6 Reg.nr.: 01-2119488876-14	ammonia Skin Corr. 1B, H314; Aquatic Acute 1, H400; STOT SE 3, H335	≥5-<10%
CAS: 157627-86-6	Alcohols, C13-15-branched and linear,ethoxylated Aquatic Acute 1, H400; Eye Irrit. 2, H319; Aquatic Chronic 3, H412	2.5-<10%
CAS: 106-97-8 EINECS: 203-448-7 Reg.nr.: 01-2119474691-32	butane (containing < 0.1% butadiene (203-450-8), Note K) Flam. Gas 1A, H220; Press. Gas (Comp.), H280	1-<2.5%
CAS: 75-28-5 EINECS: 200-857-2 Reg.nr.: 01-2119485395-27	isobutane (containing < 0,1 % butadiene (203-450-8), Note K) Flam. Gas 1A, H220; Press. Gas (Comp.), H280	0.1-<1%

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· Additional information: The text of the hazard statements mentioned here can be found in chapter 16.

SECTION 4: First aid measures

- · 4.1 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. If symptoms persist, 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:

Water haze

Fire-extinguishing powder

Carbon dioxide

Alcohol resistant foam

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment: Mount respiratory protective device.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

· 6.2 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.

 \cdot 6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

· 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 Ensure good ventilation/exhaustion at the workplace.
- · Information about fire and explosion protection:

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

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

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.

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- · 7.2 Conditions for safe storage, including any incompatibilities
- · Requirements to be met by storerooms and receptacles:

Store in a cool location.

Observe official regulations on storing packagings with pressurised containers.

· Information about storage in one common storage facility:

Observe official regulations on storing packagings with pressurised containers.

· Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

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

· Ingre	· Ingredients with limit values that require monitoring at the workplace:	
107-9	107-98-2 1-methoxy-2-propanol	
WEL	Short-term value: 560 mg/m³, 150 ppm	
	Long-term value: 375 mg/m³, 100 ppm	
	Sk	
74-98	74-98-6 propane	

OEL Long-term value: 1800 mg/m³, 1000 ppm Additioneel ingevuld tby klant voor Hfdst3 SDS

111-76-2 2-butoxyethanol

WEL Short-term value: 246 mg/m³, 50 ppm Long-term value: 123 mg/m³, 25 ppm Sk, BMGV

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

WEL Short-term value: 1810 mg/m³, 750 ppm Long-term value: 1450 mg/m³, 600 ppm Carc (if more than 0.1% of buta-1.3-diene)

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

OEL Long-term value: 2400 mg/m³, 1000 ppm Additioneel ingevuld obv klant voor Hfdst 3 SDS

· DNELs

107-98-2 1-methoxy-2-propanol

Oral	DNEL Long term-systemic	3.3 mg/kg bw/day (Consumer)
Dermal	DNEL Long term-systemic	18.1 mg/kg bw/day (Consumer)
		50.6 mg/kg bw/day (Worker)
Inhalative	DNEL Acute-local	553.5 mg/m3 (Worker)
	DNEL Long term-systemic	43.9 mg/m3 (Consumer)
		369 mg/m3 (Worker)

128601-23-0 Hydrocarbons, C9, aromatics

Oral	DNEL Long term-systemic	11 mg/kg bw/day (Consumer)
Dermal	DNEL Long term-systemic	11 mg/kg bw/day (Consumer)
		25 mg/kg bw/day (Worker)
Inhalative	DNEL Long term-systemic	32 mg/m3 (Consumer)
		100 mg/m3 (Worker)

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· PNECs	
107-98-2 1-methoxy-2-pro	panol
PNEC Freshwater	10 mg/l (Undefind)
PNEC Freshwater sediment	41.6 mg/l(dry weight) (Undefind)
PNEC Soil	2.47 ug/kg (Undefind)

· Ingredients with biological limit values:

111-76-2 2-butoxyethanol

BMGV 240 mmol/mol creatinine

Medium: urine

Sampling time: post shift Parameter: butoxyacetic acid

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 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.

Avoid contact with the eyes and skin.

General ventilation

· Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Filter ABEK/P2

· Protection of hands:

Wear gloves for the protection against chemicals according to 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.

Nitrile rubber, NBR

Recommended thickness of the material: $\geq 0.5 \text{ mm}$

· 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. (EN-13034/6)

Full skin covering antistatic, chemical and oil resistant clothing and safety shoes are recommended. (EN1149; EN340&EN ISO 13688; EN13034-6).

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· Limitation and supervision of exposure into the environment

Use a suitable container to prevent environmental contamination.

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SECTION 9: Physical and chemical properties

 9.1 Information on basic physi 	cal and chemical properties
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· General Information

· Appearance:

Form: Aerosol
Colour: Colourless

Odour: Ammonia-like
Odour threshold: Not determined.

· pH-value at 20 °C:

· Change in condition

Melting point/freezing point: Undetermined. **Initial boiling point and boiling range:** -44.5 °C

· Flash point: -97 °C

· Flammability (solid, gas): Not applicable.

• **Auto-ignition temperature:** Product is not selfigniting.

• Explosive properties: Product is not explosive. However, formation of explosive air/

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vapour mixtures are possible.

· Explosion limits:

 Lower:
 0.7 Vol %

 Upper:
 20 Vol %

· Vapour pressure at 20 °C: 8300 hPa

Density: Not determined.
Relative density Not determined.
Vapour density Not determined.
Evaporation rate Not applicable.

· Solubility in / Miscibility with

water: Not miscible or difficult to mix.

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

· Viscosity:

Dynamic: Not determined **Kinematic:** Not determined.

· Solvent content:

Organic solvents: 58.5% Water: 17.0%

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.

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· 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50	· LD/LC50 values relevant for classification:		
107-98-2 1	107-98-2 1-methoxy-2-propanol		
Oral	LD50	4016 mg/kg (Rat)	
Dermal	LD50	>2000 mg/kg (Rat)	
Inhalative	LC50 (4h)	28.8 mg/l (Rat)	
	LC50 (6h)	27596 mg/m3 (Rat)	
128601-23	-0 Hydroca	arbons,C9,aromatics	
Oral	LD50	3492 mg/kg (Rat)	
Dermal	LD50	>3160 mg/kg (Rabbit)	
Inhalative	LC50 (4h)	>6193 mg/l (Rat) (Acute Inhalation Toxicity)	
112-80-1	112-80-1 oleic acid, pure		
Oral	Oral LD50 25000 mg/kg (Rat)		
111-76-2 2	111-76-2 2-butoxyethanol		
Oral	LD50	300 mg/kg (Rabbit)	
		470 mg/kg (Rat)	
Dermal	LD50	2000 mg/kg (Rabbit)	
157627-86	-6 Alcohols	s, C13-15-branched and linear,ethoxylated	
Oral	LC50	>20000 mg/kg (Rat)	

- Primary irritant effect:
- · Skin corrosion/irritation

Causes severe skin burns and eye damage.

 $\cdot \ Serious \ eye \ damage/irritation$

Causes serious eye damage.

- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Additional toxicological information:
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure

May cause respiratory irritation. May cause drowsiness or dizziness.

- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:		
107-98-2 1-methoxy-2-propanol		
LC50 (96h)	6812 mg/l (Fish)	
EC50 (48h)	23300 mg/l (Daphnia magna)	
128601-23-0 Hydrocarbons,C9,aromatics		
NOELR (72h)	1 mg/l (Pseudokirchneriella subcapitata)	

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EL50 (48h)	3.2 mg/l (Daphnia magna)
LL50 (96h)	9.2 mg/l (Oncorhynchus mykiss)
112-80-1 oleic	acid, pure
LC50 (96h)	205 mg/l (Pimephales promelas)
EC50 (48h)	2.8 mg/l (Daphnia magna) (Daphnia sp. Acute Immobilisation Test)
111-76-2 2-bu	toxyethanol
LC50	1490 mg/l (Lepomis macrochirus)
157627-86-6 A	Alcohols, C13-15-branched and linear,ethoxylated
LC0 (96h)	1-10 mg/l (Brachydanio rerio)
EC10	>10 mg/l (Pseudomonas putida)
EC50 (72h)	0.1-1 mg/l (Scenedesmus subspicatus)
EC50 (48h)	0.1-1 mg/l (dap)

- 12.2 Persistence and degradability Not easily biodegradable
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical 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.

Toxic for aquatic organisms

- · 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

SECTION 14. Transport information

- · 13.1 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.

SECTION 14: Transport information		
· 14.1 UN-Number · ADR, ADN, IMDG, IATA	UN1950	
· 14.2 UN proper shipping name · ADR. ADN	UN1950 AEROSOLS	

· IMDG AEROSOLS

• IATA AEROSOLS, flammable, containing substances in Class 8, Packing Group III

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· 14.3 Transport hazard class(es)	
· ADR	
· Class · Label	2 5FC Gases. 2.1+8
· ADN · ADN/R Class:	2 5FC
· IMDG	
· Class · Label	2.1 2.1/8
·IATA	
· Class · Label	2.1 2.1 (8)
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards: · Marine pollutant:	Yes
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number:	Warning: Gases F-D,S-U
· Segregation groups	Alkalis
· Stowage Code	SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity abov 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 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
· 14.7 Transport in bulk according to Annex II o Marpol and the IBC Code	f Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L

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· Excepted quantities (EQ)	Code: E0
	Not permitted as Excepted Quantity
· Transport category	3
· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0
	Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1 (8)

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category P3a FLAMMABLE AEROSOLS
- · Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t
- · Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- · National regulations:
- · Breakdown regulations:

Class	Share in %
Wasser	10-<25
NK	50-<75

- · VOC-CH 58.50 %
- · VOC-EU 585.0 g/l
- · Danish MAL Code 5-3
- · 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.

H226 Flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

- · Department issuing SDS: Research & Development
- · Contact: G.Groot
- · 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)

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IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Gas 1A: Flammable gases – Category 1A

Aerosol 1: Aerosols – Category 1

Press. Gas (Comp.): Gases under pressure - Compressed gas

Flam. Liq. 3: Flammable liquids – Category 3 Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Asp. Tox. 1: Aspiration hazard - Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3

* Data compared to the previous version altered. *

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