

Printing date: 29.11.2023 Version: 12 (replaces version 1) Revision: 29.11.2023

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

· Product identifier

· Trade name: JLM Motor Start 300ml

. Article number: J04250

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

JLM Lubricants BV

Schiphol Boulevard 127 1118 BG Schiphol The Netherlands

Tel: +31 (0) 2 2014995

Further information obtainable from: Research & Development: info@jlmlubrcants.com

· Emergency telephone number: During normal business hours: Tel: +31 (0) 2 2014995

SECTION 2: Hazards identification

· Classification of the substance or mixture



flame

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



Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2	H319	Causes serious eye irritation.
STOT SE 3	H336	May cause drowsiness or dizziness.
Asp. Tox. 1	H304	May be fatal if swallowed and enters airways.
Aquatic Chronic 3	H412	Harmful to aquatic life with long lasting effects.

- · Label elements
- · GHS label elements

The product is classified and labelled according to the Globally Harmonised System (GHS).

· Hazard pictograms





GHS02 GHS07

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

diethyl ether

Pentane

Hydrocarbons, C6, isoalkanes, <5% n-hexane

Acetone

· Hazard statements

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

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.
· Precaution:	ary 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 mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves / eye protection.
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.
P312	Call a POISON CENTER/doctor if you feel unwell.
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.
· Additional	information:

Product contains: Reportable explosives precursors. Making available, introduction, possession and use according to Regulation (EU) 2019/1148, Article 9.

Buildup of explosive mixtures possible without sufficient ventilation.

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- ·Mixtures
- · Description: Mixture of active substance with propellant

Dangerous components:		
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21	propane Flam. Gas 1A, H220; Press. Gas (Comp.), H280	25-<50%
CAS: 60-29-7 EINECS: 200-467-2 Reg.nr.: 01-2119535785-29	diethyl ether Flam. Liq. 1, H224; Acute Tox. 4, H302; STOT SE 3, H336, EUH019, EUH066	10-<25%
CAS: 109-66-0 EINECS: 203-692-4 Reg.nr.: 01-2119459286-30	Pentane Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H336, EUH066	10-<25%
EC number: 931-254-9 Reg.nr.: 01-2119484651-34	Hydrocarbons,C6,isoalkanes, <5% n-hexane Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	10-<25%
CAS: 67-64-1 EINECS: 200-662-2 Reg.nr.: 01-2119471330-49	Acetone Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	10-<25%
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	2.5-<10%
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	1-<2.5%

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· Additional information:

Aerosols and containers fitted with a solid atomizer containing substances or mixtures classified as hazardous by aspiration shall not be labelled for that hazard.

The text of the hazard statements mentioned here can be found in chapter 16.

SECTION 4: First aid measures

- · Description of first aid measures
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- · 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.
- · 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.

SECTION 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.

SECTION 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.

Do not flush with water or aqueous cleansing agents

· 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

- · 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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- · 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.

· 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.

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

DECTIO)N 8: Exposure contro	ols/personal protection	
Control p	arameters		
		equire monitoring at the workplace:	
74-98-6 pi	-		
Ado	g-term value: 1800 mg/m³, litioneel ingevuld tbv klant		
	iethyl ether		
	rt-term value: 620 mg/m³, 2 g-term value: 310 mg/m³, 1		
109-66-0 1	Pentane		
	g-term value: 1800 mg/m³,	600 ppm	
67-64-1 A			
	rt-term value: 3620 mg/m³, g-term value: 1210 mg/m³,		
106-97-8 l	outane (containing < 0.1%	butadiene (203-450-8), Note K)	
Lon Car	rt-term value: 1810 mg/m ³ , g-term value: 1450 mg/m ³ , c (if more than 0.1% of buta obutane (containing < 0,1	600 ppm	
OEL Lon	ig-term value: 2400 mg/m³, litioneel ingevuld obv klant	1000 ppm	
DNELs			
109-66-0 1			
Oral		214 mg/kg bw/day (Consumer)	
Dermal		2 214 mg/kg bw/day (Consumer) 432 mg/kg bw/day (Worker)	
Inhalative	DNEL Long term-systemic	643 mg/m3 (Consumer) 3000 mg/m3 (Worker)	
Hydrocar	bons,C6,isoalkanes, <5%	n-hexane	
Oral	DNEL Long term-systemic	c 1301 mg/kg bw/day (Consumer)	
Dermal	DNEL Long term-systemic	1377 mg/kg bw/day (Consumer) 13964 mg/kg bw/day (Worker)	
	DNEL Long term systemic	1137 mg/m3 (Consumer)	

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Dermal	DNEL Long term-systemic	62 mg/kg bw/day (Consumer)
		186 mg/kg bw/day (Worker)
Inhalative	DNEL Acute-local	2420 mg/m3 (Worker)
	DNEL Long term-systemic	200 mg/m3 (Consumer)
		1210 mg/m3 (Worker)

·PNECs

67-64-1 Acetone

PNEC Marine water 1.06 mg/l (Undefind)

PNEC Freshwater sediment 30.4 mg/l(dry weight) (Undefind)

PNEC Soil 29.5 mg/kg (Undefind)

PNEC Marine water sediment 3.04 mg/l(dry weight) (Undefind)

Ingredients with biological limit values:

· Additional Occupational Exposure Limit Values for possible hazards during processing:

110-54-3 n-hexane

WEL Long-term value: 72 mg/m³, 20 ppm

- Additional information: The lists valid during the making were used as basis.
- · Exposure controls
- · Appropriate engineering controls No further data; see section 7.
- · Individual protection measures, such as personal protective equipment
- · General protective and hygienic measures:

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

General ventilation

· Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Filter A2/P2

· Hand protection



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: ≥ 0.5 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/face protection

Safety glasses



Tightly sealed goggles

· Body protection:

Use protective suit. (EN-13034/6)

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

· Environmental exposure controls Use an appropriate container to avoid environmental pollution.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

· General Information

· Physical state Aerosol

· Colour: According to product specification

Odour: Characteristic
 Odour threshold: Not determined.
 Melting point/freezing point: Undetermined.

· Boiling point or initial boiling point and boiling

range -44.5 °C • Flammability Not applicable.

· Lower and upper explosion limit

 · Lower:
 1.1 Vol %

 · Upper:
 36 Vol %

 · Flash point:
 -97 °C

 · Ignition Temperature
 170 °C

• pH Mixture is non-polar/aprotic.

· Viscosity:

Kinematic viscosityDynamic:Not determined.Not determined

·Solubility

• water: Not miscible or difficult to mix.

Partition coefficient n-octanol/water (log value)
 Vapour pressure at 20 °C:
 Vapor Pressure at 50 °C:
 9500 hPa

Density and/or relative density

Density at 20 °C:
 Relative density
 Vapour density
 Not determined.
 Not determined.

· Other information

· Form: Aerosol

· Important information on protection of health and

environment, and on safety.

• **Ignition temperature:** Product is not selfigniting. • **Explosive properties:** May form explosive peroxides.

Organic solvents:
Solids content:
Evaporation rate
Mot applicable.

· Information with regard to physical hazard classes

· Explosives Void · Flammable gases Void

• **Aerosols** Extremely flammable aerosol. Pressurised container:

May burst if heated.

Oxidising gases
Gases under pressure
Flammable liquids
Flammable solids
Self-reactive substances and mixtures
Pyrophoric liquids
Pyrophoric solids
Void

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(Contd. of page 6) · Self-heating substances and mixtures Void · Substances and mixtures, which emit flammable gases in contact with water Void · Oxidising liquids Void · Oxidising solids Void · Organic peroxides Void · Corrosive to metals Void · Desensitised explosives Void

SECTION 10: Stability and reactivity

- · Reactivity No further relevant information available.
- · 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.

SECTION 11: Toxicological information

- · Information on hazard classes as defined in Regulation (EC) No 1272/2008
- · Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50	· LD/LC50 values relevant for classification:		
ATE (Acu	ATE (Acute Toxicity Estimates)		
Oral	LD50	2940 mg/kg (Rat)	
60-29-7 di	60-29-7 diethyl ether		
Oral	LD50	1215 mg/kg (Rat)	
Inhalative	LC50 (4h)	73000 mg/l (Rat)	
109-66-0 I	Pentane		
Oral	LD50	>5000 mg/kg (Rat)	
Hydrocar	bons,C6,iso	oalkanes, <5% n-hexane	
Oral	LD50	>5000 mg/kg (Rat)	
Dermal	LD50	>3000 mg/kg (Rabbit)	
Inhalative	LC50 (4h)	>10000 mg/l (Rat)	
67-64-1 A	67-64-1 Acetone		
Oral	LD50	5800 mg/kg (Rat) (Acute Oral Toxicity)	
	ATE	5800 mg/kg (Rat)	
Dermal	LD50	7800 mg/kg (Rabbit)	
	ATE	20000 mg/kg (not defined)	
		>15800 mg/kg (Rabbit)	
Inhalative	LC50 (4h)	>20 mg/l (Rat)	
	ATE	76 mg/l, 4h (Rat)	

- · Skin corrosion/irritation Causes skin irritation.
- · Serious eye damage/irritation Causes serious eye irritation.
- · STOT-single exposure May cause drowsiness or dizziness.
- · Aspiration hazard May be fatal if swallowed and enters airways.

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Safety data sheet according to 1907/2006/EC, Article 31. (2020/878)

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· Information on other hazards

· Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

· Toxicity

· Aquatic toxicity:					
109-66-0 Per	109-66-0 Pentane				
NOEC (72h)	7.51 mg/l (Pseudokirchneriella subcapitata)				
EC50 (72h)	10.7 mg/l (Pseudokirchneriella subcapitata)				
LC50 (96h)	4.26 mg/l (Oncorhynchus mykiss)				
EC50 (48h)	2.7 mg/l (Daphnia magna)				
Hydrocarbons,C6,isoalkanes, <5% n-hexane					
LC50 >2 mg/l (Fish)					
67-64-1 Acetone					
EC50	8800 mg/l (Daphnia magna)				
	8300 mg/l (Fish)				

- · Persistence and degradability Not easily biodegradable
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

- · Other adverse effects
- · Remark: Harmful to 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.

Harmful to aquatic organisms

SECTION 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.

SECTION 14: Tran	isport information
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· UN number or ID	number
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· ADR, ADN, IMDG, IATA UN1950

· UN proper shipping name

· ADR, ADN UN1950 AEROSOLS

· IMDG AEROSOLS

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IATA	AEROSOLS, flammable
Transport hazard class(es) ADR	
Class Label	2 5F Gases. 2.1
ADN ADN/R Class:	2 5F
IMDG, IATA	
Class Label	2.1 Gases. 2.1
Packing group ADR, IMDG, IATA	Void
Environmental hazards:	Not applicable.
Special precautions for user Hazard identification number (Kemler code): EMS Number: Stowage Code Segregation Code Maritime transport in bulk according to IMO	F-D,S-U SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre Category A. For AEROSOLS with a capacity above 1 litre Category B. For WASTE AEROSOLS: Category C, Clear of living quarters. SG69 For AEROSOLS with a maximum capacity of 1 litre Segregation as for class 9. Stow "separated from" class 1 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.
instruments	Not applicable.
Transport/Additional information:	
ADR Limited quantities (LQ) Excepted quantities (EQ)	1L Code: E0 Not permitted as Excepted Quantity
Transport category Tunnel restriction code	2 D
IMDG Limited quantities (LQ) Excepted quantities (EQ)	1L Code: E0 Not permitted as Excepted Quantity

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· UN "Model Regulation":

UN 1950 AEROSOLS, 2.1

SECTION 15: Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Poisons Act
- · Regulated explosives precursors

None of the ingredients is listed.

· Regulated poisons

None of the ingredients is listed.

· Reportable explosives precursors

67-64-1 Acetone

Listed

· Reportable poisons

None of the ingredients is listed.

- · 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 %
NK	75-<100

- · VOC-CH 96.70 %
- · VOC-EU 592.8 g/l
- · Danish MAL Code 3-1
- · 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.

H224 Extremely flammable liquid and vapour.

H225 Highly 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.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

EUH019 May form explosive peroxides.

EUH066 Repeated exposure may cause skin dryness or cracking.

· Classification according to Regulation (EC) No 1272/2008

Physical and chemical properties: The classification is based on the results of the mixtures tested. Health hazards, Environmental hazards: The method of classification of mixtures based on the constituents of the mixture (sum formula).

· Contact: G. Groot

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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)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

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 (UK REACH)

PNEC: Predicted No-Effect Concentration (UK REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

ATE: Acute toxicity estimate values

Flam. Gas 1A: Flammable gases - Category 1A

Aerosol 1: Aerosols - Category 1

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

Flam. Liq. 1: Flammable liquids - Category 1

Flam. Liq. 2: Flammable liquids - Category 2

Acute Tox. 4: Acute toxicity – Category 4

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

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 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. *