

Safety data sheet

According to 1907/2006 EEC Article 31

Printing date: 22.05.2018

Version: 33

Revision: 17.05.2018

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

- **1.1 Product identifier**
- **Trade name:** JLM Diesel Air Intake & EGR cleaner
- **Article number:** J02710
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Sector of Use**
 SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
 SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
 SU21 Consumer uses: Private households / general public / consumers
- **Product category** PC35 Washing and cleaning products (including solvent based products)
- **Application of the substance / the mixture** Cleaner solvent
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 JLM Lubricants.com
 Schiphol Boulevard 127
 1118 BG Schiphol
 The Netherlands
 Tel: +31 (0) 201 4995
- **Further information obtainable from:** Research & Development: info@jlm lubricants.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**
- | | |
|---|--|
|  | GHS02 flame |
| Aerosol 1 | H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated. |
- | | |
|---|---|
|  | GHS08 health hazard |
| STOT RE 2 | H373 May cause damage to organs through prolonged or repeated exposure. |
- | | |
|---|--|
|  | GHS07 |
| Skin Irrit. 2 | H315 Causes skin irritation. |
| Eye Irrit. 2 | H319 Causes serious eye irritation. |
| 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. |
| Aquatic Chronic 3 | H412 Harmful to aquatic life with long lasting effects. |

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.

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Trade name: JLM Diesel Air Intake & EGR cleaner

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· **Hazard pictograms**



GHS02 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labelling:**

Reaction mass of ethylbenzene and xylene
 Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics
 butanone
 propan-2-ol

· **Hazard statements**

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H412 Harmful to aquatic life with long lasting effects.

· **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.
 P273 Avoid release to the environment.
 P280 Wear protective gloves / eye protection / face protection.
 P302+P352 IF ON SKIN: Wash with plenty of 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.
 P312 Call a POISON CENTER/doctor if you feel unwell.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.
 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:**

Buildup of explosive mixtures possible without sufficient ventilation.

· **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:**

EC number: 905-588-0	Reaction mass of ethylbenzene and xylene	25-<50%
Reg.nr.: 01-2119488216-32 01-2119486136-34	Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	

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CAS: 78-93-3 EINECS: 201-159-0 Reg.nr.: 01-2119457290-43	butanone Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	10-<25%
EC number: 920-750-0 Reg.nr.: 01-2119473851-33	Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H336	10-<25%
CAS: 67-63-0 EINECS: 200-661-7 Reg.nr.: 01-2119457558-25	propan-2-ol Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	10-<25%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21	propane Flam. Gas 1, H220; Press. Gas (Comp.), H280	10-<25%
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	1-<2.5%

· **Ingredients according to detergents guideline 648/2004/EC**

aliphatic hydrocarbons	≥30%
aromatic hydrocarbons	≥15 - <30%

· **Additional information:**

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

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.

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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.
- **6.3 Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
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.
- **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.
- **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

- **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:**

Reaction mass of ethylbenzene and xylene

WEL	Short-term value: 441 mg/m ³ , 100 ppm Long-term value: 220 mg/m ³ , 50 ppm Sk; BMGV
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78-93-3 butanone

WEL	Short-term value: 899 mg/m ³ , 300 ppm Long-term value: 600 mg/m ³ , 200 ppm Sk, BMGV
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67-63-0 propan-2-ol

WEL	Short-term value: 1250 mg/m ³ , 500 ppm Long-term value: 999 mg/m ³ , 400 ppm
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74-98-6 propane

OEL	Short-term value: 3600 mg/m ³ , 2000 ppm Long-term value: 1800 mg/m ³ , 1000 ppm
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111-76-2 2-butoxyethanol

WEL	Short-term value: 246 mg/m ³ , 50 ppm Long-term value: 123 mg/m ³ , 25 ppm Sk, BMGV
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· DNELs**Reaction mass of ethylbenzene and xylene**

Oral	DNEL Long term-systemic	1.6 mg/kg bw/day (Consumer)
Dermal	DNEL Long term-systemic	108 mg/kg bw/day (Consumer) 180 mg/kg bw/day (Worker)
Inhalative	DNEL Acute-local	289 mg/m ³ (Worker)
	DNEL Long term-systemic	14.8 mg/m ³ (Consumer) 77 mg/m ³ (Worker)

78-93-3 butanone

Oral	DNEL Long term-systemic	31 mg/kg bw/day (Consumer)
Dermal	DNEL Long term-systemic	412 mg/kg bw/day (Consumer) 1,161 mg/kg bw/day (Worker)
Inhalative	DNEL Long term-systemic	106 mg/m ³ (Consumer) 600 mg/m ³ (Worker)

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Oral	DNEL Long term-systemic	699 mg/kg bw/day (Consumer)
Dermal	DNEL Long term-systemic	699 mg/kg bw/day (Consumer) 773 mg/kg bw/day (Worker)
Inhalative	DNEL Long term-systemic	608 mg/m ³ (Consumer) 2,035 mg/m ³ (Worker)

67-63-0 propan-2-ol

Oral	DNEL Long term-systemic	26 mg/kg bw/day (Consumer)
Dermal	DNEL Long term-systemic	319 mg/kg bw/day (Consumer) 888 mg/kg bw/day (Worker)
Inhalative	DNEL Long term-systemic	89 mg/m ³ (Consumer) 500 mg/m ³ (Worker)

· PNECs**Reaction mass of ethylbenzene and xylene**

PNEC Freshwater	0.327 mg/l (Undefind)
PNEC Marine water	0.327 mg/l (Undefind)
PNEC Freshwater sediment	12.46 mg/l(dry weight) (Undefind)
PNEC Soil	2.31 (Undefind)
PNEC Sewage Treatment Plant	6.58 mg/l (Undefind)
PNEC Marine water sediment	12.46 mg/l(dry weight) (Undefind)

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Trade name: JLM Diesel Air Intake & EGR cleaner

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· Ingredients with biological limit values:	
Reaction mass of ethylbenzene and xylene	
BMGV	650 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: methyl hippuric acid
78-93-3 butanone	
BMGV	70 µmol/L Medium: urine Sampling time: post shift Parameter: butan-2-one
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.
- Do not inhale gases / fumes / aerosols.
- 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.

Filter AX/P2

Use suitable respiratory protective device in case of insufficient ventilation.

Filter A/P2

· **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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: ≥ 0.5 mm

· **Penetration time of glove material**

For continuous contact we recommend gloves with breakthrough time of at least 240 minutes, with the preference given to a breakthrough time greater than 480 minutes. For short-term or splash guard we recommend the same. We are aware that suitable gloves that offer this level of protection may not be available. In that case, a shorter breakthrough time are acceptable as long as the procedures governing maintenance and timely replacement are followed. The thickness of the gloves is not a good measure of the resistance of the gloves against a chemical substance, because this depends on the exact composition of the material from which the gloves are made.

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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)

SECTION 9: Physical and chemical properties

· 9.1 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/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/vapour mixtures are possible.

· Explosion limits:

Lower:	0.7 Vol %
Upper:	12 Vol %

· **Vapour pressure at 20 °C:** 8,300 hPa

· **Density at 20 °C:** 0.75 g/cm³

· **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: 100.0 %

· **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.

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Trade name: JLM Diesel Air Intake & EGR cleaner

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- **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.
- **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 values relevant for classification:**

Reaction mass of ethylbenzene and xylene

Oral	LD50	4,300 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rbt)

78-93-3 butanone

Oral	LD50	>2,193 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)
		5,000 mg/kg (rbt)

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>2,800 mg/kg (rabbit)
Inhalative	LC50/4 h	>23 mg/l (rat)

67-63-0 propan-2-ol

Oral	LD50	5,840 mg/kg (rat)
Dermal	LD50	13,900 mg/kg (rabbit)
Inhalative	LC50/6h	25,000 mg/m3 (rat)

111-76-2 2-butoxyethanol

Oral	LD50	300 mg/kg (rabbit)
		470 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, 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**
May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard**
May be fatal if swallowed and enters airways.

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Trade name: JLM Diesel Air Intake & EGR cleaner

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SECTION 12: Ecological information
· 12.1 Toxicity
· Aquatic toxicity:
Reaction mass of ethylbenzene and xylene

NOEC	1.3 mg/l (Fish)
NOEC (7 day)	0.96 mg/l (Daphnia magna)
NOEC (72h)	0.44 mg/l (algae)
NOEC (28 d)	16 mg/l (Bacteria)
LC50/96h	8.9-16.4 mg/l (Pimephales promelas)
EC50/48h	3.2-9.5 mg/l (Daphnia magna)

78-93-3 butanone

LC50/96h	2,993 mg/l (Pimephales promelas)
EC50/48h	308 mg/l (Daphnia magna)

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

NOELR (72h)	10 mg/l (Pseudokirchneriella subcapitata)
EL50 (72h)	10-30 mg/l (Pseudokirchneriella subcapitata)
LL50 (96h)	>13.4 mg/l (Oncorhynchus mykiss (96h))
NOEC (21 days)	0.17 mg/l (Daphnia magna)
LOEC (21 days)	0.32 mg/l (Daphnia magna)
EC50/48h	3 mg/l (Daphnia magna)

67-63-0 propan-2-ol

LOEC (8 days)	1,000 mg/l (algae)
LC50/96h	9,640 mg/l (Pimephales promelas)
LC50 (24h)	9,714 mg/l (Daphnia magna)

111-76-2 2-butoxyethanol

LC50	1,490 mg/l (Lepomis macrochirus (96 h))
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- **12.2 Persistence and degradability** Easily biodegradable
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological 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
- **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.

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- **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

· **14.3 Transport hazard class(es)**

· **ADR**



· **Class** 2 5F Gases.
 · **Label** 2.1

· **ADN**
 · **ADN/R Class:** 2 5F

· **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
 · **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 above 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 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.

· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

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· 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
- **Excepted quantities (EQ)** Code: E0
Not permitted as Excepted Quantity

- **UN "Model Regulation":** UN 1950 AEROSOLS, 2.1

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
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 40

· National regulations:

Class	Share in %
NK	75-<100

- **VOC-CH** 100.00 %
- **VOC-EU** 745.0 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.
- H225 Highly flammable liquid and vapour.
- 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.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.

- **Department issuing SDS:** Research & Development

- **Contact:** Ing. J. Sleumer

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· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 ICAO: International Civil Aviation Organisation
 ADR: Accord européen sur le transport 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
 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 1: Flammable gases – Category 1
 Aerosol 1: Aerosols – Category 1
 Press. Gas (Comp.): Gases under pressure – Compressed gas
 Flam. Liq. 2: Flammable liquids – Category 2
 Flam. Liq. 3: Flammable liquids – Category 3
 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
 STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
 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. ***

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