

## MOLYKOTE(R) MKL-N SPRAY

Version 1.2      Revision Date: 01.10.2015      SDS Number: 818959-00003      Date of last issue: 22.04.2015  
Date of first issue: 24.11.2014

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

#### 1.1 Product identifier

Trade name : MOLYKOTE(R) MKL-N SPRAY  
Product code : 000000000001684108, 000000000001684108

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

Use of the Sub-stance/Mixture : Lubricants and lubricant additives

#### 1.3 Details of the supplier of the safety data sheet

Company : Dow Corning Europe S.A.  
rue Jules Bordet - Parc Industriel - Zone C  
B-7180 Seneffe  
Telephone : English Tel: +49 611237507  
Deutsch Tel: +49 611237500  
Français Tel: +32 64511149  
Italiano Tel: +32 64511170  
Español Tel: +32 64511163  
E-mail address of person responsible for the SDS : sdseu@dowcorning.com

#### 1.4 Emergency telephone number

Dow Corning (Barry U.K. 24h) Tél: +44 1446732350  
Dow Corning (Wiesbaden 24h) Tél: +49 61122158  
Dow Corning (Seneffe 24h) Tel: +32 64 888240

### SECTION 2: Hazards identification


#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Aerosols, Category 1      H222: Extremely flammable aerosol.  
H229: Pressurised container: May burst if heated.

#### 2.2 Label elements

##### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms : 

Signal word : Danger

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

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Precautionary statements : **Prevention:**

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.

P261      Avoid breathing spray.

P271      Use only outdoors or in a well-ventilated area.

**Storage:**

P410 + P412      Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

### 2.3 Other hazards

None known.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : Hydrocarbon aerosol propellant

#### Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
Naphtha (petroleum), hydrotreated heavy	64742-48-9 265-150-3	Flam. Liq. 3; H226 STOT SE 3; H336 Asp. Tox. 1; H304 Aquatic Chronic 3; H412	>= 2.5 - < 10
Diphenyl- (2-ethylhexyl) - phosphate	1241-94-7 214-987-2	Aquatic Acute 1; H400 Aquatic Chronic 2; H411	>= 0.25 - < 1
Substances with a workplace exposure limit :			
2-Methoxy-1-methylethyl acetate	108-65-6 203-603-9	Flam. Liq. 3; H226	>= 1 - < 10

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

Protection of first-aiders : No special precautions are necessary for first aid responders.

If inhaled : If inhaled, remove to fresh air.  
Get medical attention if symptoms occur.

In case of skin contact : Wash with water and soap as a precaution.  
Get medical attention if symptoms occur.

In case of eye contact : Flush eyes with water as a precaution.

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Get medical attention if irritation develops and persists.

If swallowed : If swallowed, DO NOT induce vomiting.  
Get medical attention if symptoms occur.  
Rinse mouth thoroughly with water.

### 4.2 Most important symptoms and effects, both acute and delayed

None known.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically and supportively.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical

Unsuitable extinguishing media : None known.

### 5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Flash back possible over considerable distance.  
Vapours may form explosive mixtures with air.  
Exposure to combustion products may be a hazard to health.  
If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.

Hazardous combustion products : Carbon oxides

### 5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Use water spray to cool unopened containers.  
Remove undamaged containers from fire area if it is safe to do so.  
Evacuate area.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Remove all sources of ignition.  
Follow safe handling advice and personal protective equipment recommendations.

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### 6.2 Environmental precautions

Environmental precautions : Discharge into the environment must be avoided.  
Prevent further leakage or spillage if safe to do so.  
Prevent spreading over a wide area (e.g. by containment or oil barriers).  
Retain and dispose of contaminated wash water.  
Local authorities should be advised if significant spillages cannot be contained.

### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Non-sparking tools should be used.  
Soak up with inert absorbent material.  
Suppress (knock down) gases/vapours/mists with a water spray jet.  
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.  
Clean up remaining materials from spill with suitable absorbent.  
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.  
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

### 6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : Use only with adequate ventilation.  
Use only in an area equipped with explosion proof exhaust ventilation.

Advice on safe handling : Avoid inhalation of vapour or mist.  
Handle in accordance with good industrial hygiene and safety practice.  
Keep away from heat and sources of ignition.  
Take precautionary measures against static discharges.  
Take care to prevent spills, waste and minimize release to the environment.

Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use.

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**7.2 Conditions for safe storage, including any incompatibilities**

Requirements for storage areas and containers : Keep in properly labelled containers. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Do not pierce or burn, even after use. Keep cool. Protect from sunlight.

Advice on common storage : Do not store with the following product types:  
Self-reactive substances and mixtures  
Organic peroxides  
Oxidizing agents  
Flammable solids  
Pyrophoric liquids  
Pyrophoric solids  
Self-heating substances and mixtures  
Substances and mixtures, which in contact with water, emit flammable gases  
Explosives

**7.3 Specific end use(s)**

Specific use(s) : For further information regarding the use of silicones / organic oils in consumer aerosol applications, please refer to the guidance document regarding the use of these type of materials in consumer aerosol applications that has been developed by the silicone industry ([www.SEHSC.com](http://www.SEHSC.com)) or contact the Dow Corning customer service group.

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

**Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
n-Butyl acetate	123-86-4	TWA	150 ppm 724 mg/m <sup>3</sup>	GB EH40
		STEL	200 ppm 966 mg/m <sup>3</sup>	GB EH40
2-Methoxy-1-methylethyl acetate	108-65-6	TWA	50 ppm 275 mg/m <sup>3</sup>	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	100 ppm 550 mg/m <sup>3</sup>	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		TWA	50 ppm 274 mg/m <sup>3</sup>	GB EH40
Further information	Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
		STEL	100 ppm 548 mg/m <sup>3</sup>	GB EH40
Further information	Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			

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**Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:**

Substance name	End Use	Exposure routes	Potential health effects	Value
n-Butyl acetate	Workers	Inhalation	Acute systemic effects	960 mg/m <sup>3</sup>
	Workers	Inhalation	Acute local effects	960 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term systemic effects	480 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term local effects	480 mg/m <sup>3</sup>
	Consumers	Inhalation	Acute systemic effects	859.7 mg/m <sup>3</sup>
	Consumers	Inhalation	Acute local effects	859.7 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term systemic effects	102.34 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term local effects	102.34 mg/m <sup>3</sup>
2-Methoxy-1-methylethyl acetate	Workers	Inhalation	Long-term systemic effects	275 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	153.5 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	33 mg/m <sup>3</sup>
	Consumers	Skin contact	Long-term systemic effects	54.8 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	1.67 mg/kg bw/day
Diphenyl- (2-ethylhexyl) -phosphate	Workers	Inhalation	Long-term systemic effects	5.11 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	0.73 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	1.54 mg/m <sup>3</sup>
	Consumers	Skin contact	Long-term systemic effects	0.44 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	0.44 mg/kg bw/day
	Workers	Inhalation	Acute systemic effects	40.88 mg/m <sup>3</sup>
Workers	Skin contact	Acute systemic effects	5.84 mg/kg bw/day	

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	Consumers	Inhalation	Acute systemic effects	58.45 mg/m3
	Consumers	Skin contact	Acute systemic effects	52.67 mg/kg bw/day
	Consumers	Ingestion	Acute systemic effects	16.7 mg/kg bw/day

**Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:**

Substance name	Environmental Compartment	Value
n-Butyl acetate	Fresh water	0.18 mg/l
	Marine water	0.018 mg/l
	Intermittent use/release	0.36 mg/l
	Sewage treatment plant	35.6 mg/l
	Fresh water sediment	0.981 mg/kg
	Marine sediment	0.0981 mg/kg
2-Methoxy-1-methylethyl acetate	Soil	0.0903 mg/kg
	Fresh water	0.635 mg/l
	Marine water	0.0635 mg/l
	Intermittent use/release	6.35 mg/l
	Sewage treatment plant	100 mg/l
	Fresh water sediment	3.29 mg/kg
Distillates (petroleum), hydrotreated light paraffinic	Marine sediment	0.329 mg/kg
	Soil	0.29 mg/kg
	Oral	9.33 mg/kg
Diphenyl- (2-ethylhexyl) - phosphate	Fresh water	1.8 µg/l
	Marine water	0.18 µg/l
	Intermittent use/release	1.5 µg/l
	Sewage treatment plant	100 mg/l
	Fresh water sediment	5.8 mg/kg
	Marine sediment	0.58 mg/kg
	Soil	1.16 mg/kg
Oral	3.86 mg/kg	

**8.2 Exposure controls**

**Engineering measures**

Ensure adequate ventilation, especially in confined areas.

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Minimize workplace exposure concentrations.  
Use only in an area equipped with explosion proof exhaust ventilation.

### Personal protective equipment

Eye protection	:	Wear the following personal protective equipment: Safety glasses
Hand protection	:	
Material	:	Flame retardant gloves
Remarks	:	Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. Wash hands before breaks and at the end of workday.
Skin and body protection	:	Wear the following personal protective equipment: Flame retardant antistatic protective clothing.
Respiratory protection	:	Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
Filter type	:	Self-contained breathing apparatus

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance	:	Aerosol containing a dissolved gas
Colour	:	black
Odour	:	solvent-like
Odour Threshold	:	No data available
pH	:	Not applicable
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	Not applicable
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	Extremely flammable aerosol.
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available



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Relative vapour density : No data available

Relative density : 0.72

Solubility(ies)  
Water solubility : No data available

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity  
Viscosity, dynamic : Not applicable

Oxidizing properties : The substance or mixture is not classified as oxidizing.

### 9.2 Other information

Molecular weight : No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Not classified as a reactivity hazard.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Extremely flammable aerosol.  
Vapours may form explosive mixture with air.  
If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.  
Can react with strong oxidizing agents.

### 10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

### 10.5 Incompatible materials

Materials to avoid : Oxidizing agents

### 10.6 Hazardous decomposition products

No hazardous decomposition products are known.

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Information on likely routes of : Inhalation

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exposure      Skin contact  
                  Ingestion  
                  Eye contact

**Acute toxicity**

Not classified based on available information.

**Components:**

**Naphtha (petroleum), hydrotreated heavy:**

Acute oral toxicity      : LD50 (Rat): > 5,000 mg/kg  
                                  Remarks: Based on data from similar materials

Acute inhalation toxicity      : LC50 (Rat): > 4,951 mg/m3  
                                  Exposure time: 4 h  
                                  Test atmosphere: vapour  
                                  Assessment: The substance or mixture has no acute inhalation toxicity  
                                  Remarks: Based on data from similar materials

Acute dermal toxicity      : LD50 (Rabbit): > 3,160 mg/kg  
                                  Assessment: The substance or mixture has no acute dermal toxicity  
                                  Remarks: Based on data from similar materials

**Diphenyl- (2-ethylhexyl) -phosphate:**

Acute oral toxicity      : LD50 (Rat): > 15,800 mg/kg

Acute inhalation toxicity      : LC50 (Rat): > 4.8 mg/l  
                                  Exposure time: 4 h  
                                  Test atmosphere: dust/mist

**2-Methoxy-1-methylethyl acetate:**

Acute oral toxicity      : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity      : LC0 (Rat): 9.48 mg/l  
                                  Exposure time: 4 h  
                                  Test atmosphere: vapour

Acute dermal toxicity      : LD50 (Rat): > 5,000 mg/kg

**Skin corrosion/irritation**

Not classified based on available information.

**Components:**

**Naphtha (petroleum), hydrotreated heavy:**

Species: Rabbit  
Result: Mild skin irritation

Assessment: Repeated exposure may cause skin dryness or cracking.

**Diphenyl- (2-ethylhexyl) -phosphate:**

Species: Rabbit  
Result: No skin irritation

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**2-Methoxy-1-methylethyl acetate:**

Species: Rabbit  
Result: No skin irritation

**Serious eye damage/eye irritation**

Not classified based on available information.

**Components:**

**Naphtha (petroleum), hydrotreated heavy:**

Species: Rabbit  
Method: OECD Test Guideline 405  
Result: No eye irritation  
Remarks: Based on data from similar materials

**Diphenyl- (2-ethylhexyl) -phosphate:**

Species: Rabbit  
Result: No eye irritation

**2-Methoxy-1-methylethyl acetate:**

Species: Rabbit  
Result: No eye irritation

**Respiratory or skin sensitisation**

Skin sensitisation: Not classified based on available information.  
Respiratory sensitisation: Not classified based on available information.

**Components:**

**Naphtha (petroleum), hydrotreated heavy:**

Test Type: Maximisation Test  
Exposure routes: Skin contact  
Species: Guinea pig  
Result: negative  
Remarks: Based on data from similar materials

**2-Methoxy-1-methylethyl acetate:**

Test Type: Maximisation Test  
Exposure routes: Skin contact  
Species: Guinea pig  
Method: OECD Test Guideline 406  
Result: negative

**Germ cell mutagenicity**

Not classified based on available information.

**Components:**

**Naphtha (petroleum), hydrotreated heavy:**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test  
Result: negative  
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo)

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cytogenetic assay)  
Species: Mouse  
Application Route: Ingestion  
Result: negative

Germ cell mutagenicity- Assessment : Classified based on benzene content < 0.1% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note P)

**Diphenyl- (2-ethylhexyl) -phosphate:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative

Genotoxicity in vivo : Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)  
Species: Rat  
Application Route: Ingestion  
Result: negative

**2-Methoxy-1-methylethyl acetate:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative

**Carcinogenicity**

Not classified based on available information.

**Components:**

**Naphtha (petroleum), hydrotreated heavy:**

Species: Rat  
Application Route: inhalation (vapour)  
Exposure time: 105 weeks  
Result: negative  
Remarks: Based on data from similar materials

Carcinogenicity - Assessment : Classified based on benzene content < 0.1% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note P)

**2-Methoxy-1-methylethyl acetate:**

Species: Rat  
Application Route: inhalation (vapour)  
Exposure time: 2 Years  
Result: negative  
Remarks: Based on data from similar materials

**Reproductive toxicity**

Not classified based on available information.

**Components:**

**Naphtha (petroleum), hydrotreated heavy:**

Effects on fertility : Test Type: Reproduction/Developmental toxicity screening test  
Species: Rat  
Application Route: inhalation (vapour)  
Result: negative

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Effects on foetal development : Test Type: Embryo-foetal development  
Species: Rat  
Application Route: inhalation (vapour)  
Result: negative  
Remarks: Based on data from similar materials

**Diphenyl- (2-ethylhexyl) -phosphate:**

Effects on fertility : Test Type: One-generation reproduction toxicity study  
Species: Rat  
Application Route: Ingestion  
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Rat  
Application Route: Ingestion  
Result: negative

**2-Methoxy-1-methylethyl acetate:**

Effects on fertility : Test Type: Combined repeated dose toxicity study with the  
reproduction/developmental toxicity screening test  
Species: Rat  
Application Route: Ingestion  
Method: OECD Test Guideline 422  
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Rat  
Application Route: inhalation (vapour)  
Result: negative

**STOT - single exposure**

Not classified based on available information.

**Components:**

**Naphtha (petroleum), hydrotreated heavy:**

Assessment: May cause drowsiness or dizziness.

**STOT - repeated exposure**

Not classified based on available information.

**Repeated dose toxicity**

**Components:**

**Naphtha (petroleum), hydrotreated heavy:**

Species: Rat  
NOAEL: 10,186 mg/m<sup>3</sup>  
Application Route: inhalation (vapour)  
Exposure time: 13 Weeks

**Diphenyl- (2-ethylhexyl) -phosphate:**

Species: Rat  
LOAEL: 174 mg/kg

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Application Route: Ingestion  
Exposure time: 90 Days

**2-Methoxy-1-methylethyl acetate:**

Species: Rat  
NOAEL: > 1,000 mg/kg  
Application Route: Ingestion  
Exposure time: 41 - 45 Days  
Method: OECD Test Guideline 422

Species: Mouse  
NOAEL: 1.62 mg/l  
Application Route: inhalation (vapour)  
Exposure time: 2 yr  
Remarks: Based on data from similar materials

Species: Rabbit  
NOAEL: > 1,000 mg/kg  
Application Route: Skin contact  
Exposure time: 21 Days  
Remarks: Based on data from similar materials

**Aspiration toxicity**

Not classified based on available information.

**Components:**

**Naphtha (petroleum), hydrotreated heavy:**

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

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## SECTION 12: Ecological information

### 12.1 Toxicity

**Components:**

**Naphtha (petroleum), hydrotreated heavy:**

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): > 10 - 30 mg/l  
Exposure time: 96 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 203  
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 22 - 46 mg/l  
Exposure time: 48 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 202  
Remarks: Based on data from similar materials

Toxicity to algae : EL50 (Pseudokirchneriella subcapitata (green algae)): > 1,000 mg/l  
Exposure time: 72 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 201

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Remarks: Based on data from similar materials

NOELR (Pseudokirchneriella subcapitata (green algae)): 1 mg/l  
Exposure time: 72 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 201  
Remarks: Based on data from similar materials

### Diphenyl- (2-ethylhexyl) -phosphate:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Chironomus sp. (midge)): 0.67 mg/l  
Exposure time: 48 h

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 0.12 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

NOEC (Desmodesmus subspicatus (green algae)): 0.072 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 1

Toxicity to fish (Chronic toxicity) : NOEC: 0.021 mg/l  
Exposure time: 71 d  
Species: Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.018 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)

### 2-Methoxy-1-methylethyl acetate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 - 180 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 500 mg/l  
Exposure time: 48 h

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 1,000 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 201

Toxicity to bacteria : EC10 : > 1,000 mg/l  
Exposure time: 0.5 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: > 100 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 211

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### 12.2 Persistence and degradability

#### Components:

##### **Naphtha (petroleum), hydrotreated heavy:**

Biodegradability : Result: Readily biodegradable  
Biodegradation: 89 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F  
Remarks: Based on data from similar materials

##### **Diphenyl- (2-ethylhexyl) -phosphate:**

Biodegradability : Result: Readily biodegradable  
Biodegradation: 70.8 %  
Exposure time: 15 d  
Method: OECD Test Guideline 301B

##### **2-Methoxy-1-methylethyl acetate:**

Biodegradability : Result: Readily biodegradable  
Biodegradation: 90 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F

### 12.3 Bioaccumulative potential

#### Components:

##### **Diphenyl- (2-ethylhexyl) -phosphate:**

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)  
Bioconcentration factor (BCF): 934

Partition coefficient: n-octanol/water : log Pow: 5.87

##### **2-Methoxy-1-methylethyl acetate:**

Partition coefficient: n-octanol/water : log Pow: 1.2

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

Not relevant

### 12.6 Other adverse effects

No data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.  
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.  
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.





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Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not burn.  
If not otherwise specified: Dispose of as unused product.  
Please ensure aerosol cans are sprayed completely empty (including propellant)

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### SECTION 14: Transport information

#### 14.1 UN number

**ADN** : UN 1950  
**ADR** : UN 1950  
**RID** : UN 1950  
**IMDG** : UN 1950  
**IATA** : UN 1950

#### 14.2 UN proper shipping name

**ADN** : AEROSOLS  
**ADR** : AEROSOLS  
**RID** : AEROSOLS  
**IMDG** : AEROSOLS  
**IATA** : Aerosols, flammable

#### 14.3 Transport hazard class(es)

**ADN** : 2.1  
**ADR** : 2.1  
**RID** : 2.1  
**IMDG** : 2.1  
**IATA** : 2.1

#### 14.4 Packing group

**ADN**  
Packing group : Not assigned by regulation  
Classification Code : 5F  
Labels : 2.1

**ADR**  
Packing group : Not assigned by regulation  
Classification Code : 5F  
Labels : 2.1  
Tunnel restriction code : (D)

**RID**  
Packing group : Not assigned by regulation  
Classification Code : 5F

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Hazard Identification Number : 23  
Labels : 2.1

**IMDG**

Packing group : Not assigned by regulation  
Labels : 2.1  
EmS Code : F-D, S-U

**IATA (Cargo)**

Packing instruction (cargo aircraft) : 203  
Packing instruction (LQ) : Y203  
Packing group : Not assigned by regulation  
Labels : Flammable Gas

**IATA (Passenger)**

Packing instruction (passenger aircraft) : 203  
Packing instruction (LQ) : Y203  
Packing group : Not assigned by regulation  
Labels : Flammable Gas

**14.5 Environmental hazards**

**ADN**

Environmentally hazardous : no

**ADR**

Environmentally hazardous : no

**RID**

Environmentally hazardous : no

**IMDG**

Marine pollutant : no

**14.6 Special precautions for user**

Not applicable

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Remarks : Not applicable for product as supplied.

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**SECTION 15: Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

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Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
P3a	FLAMMABLE AEROSOLS	150 t	500 t
18	Liquefied extremely flammable gases (including LPG) and natural gas	50 t	200 t
34	Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d)	2,500 t	25,000 t

Other regulations : Take note of Dir 94/33/EC on the protection of young people at work.

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

**The components of this product are reported in the following inventories:**

NZIoC : All ingredients listed or exempt.

REACH : All ingredients (pre-)registered or exempt.

AICS : All ingredients listed or exempt.

IECSC : All ingredients listed or exempt.

DSL : All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempt from listing on the Canadian Domestic Substances List (DSL).

KECI : One or more ingredients are not listed or exempt.

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TCSI : All ingredients listed or exempt.

### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

#### Full text of H-Statements

H226 : Flammable liquid and vapour.  
H304 : May be fatal if swallowed and enters airways.  
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.

#### Full text of other abbreviations

Aquatic Acute : Acute aquatic toxicity  
Aquatic Chronic : Chronic aquatic toxicity  
Asp. Tox. : Aspiration hazard  
Flam. Liq. : Flammable liquids  
STOT SE : Specific target organ toxicity - single exposure  
2000/39/EC : Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values  
GB EH40 : UK. EH40 WEL - Workplace Exposure Limits  
2000/39/EC / TWA : Limit Value - eight hours  
2000/39/EC / STEL : Short term exposure limit  
GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)  
GB EH40 / STEL : Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances

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es; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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