

## MOLYKOTE(R) METAL PROTECTOR PLUS SPRAY

Version	Revision Date:	SDS Number:	Date of last issue:
3.2	27.01.2016	812589-00006	14.10.2015
			Date of first issue: 21.11.2014

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

#### 1.1 Product identifier

Trade name : MOLYKOTE(R) METAL PROTECTOR PLUS SPRAY

Product code : 000000000001991710, 000000000001991710

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

Use of the Sub-  
stance/Mixture : Corrosion inhibitors

#### 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.
Skin irritation, Category 2	H315: Causes skin irritation.
Specific target organ toxicity - single exposure, Category 3	H336: May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure, Category 1	H372: Causes damage to organs through prolonged or repeated exposure.
Chronic aquatic toxicity, Category 2	H411: Toxic to aquatic life with long lasting effects.

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### 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.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H372	Causes damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

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.
P260	Do not breathe 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.
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Hazardous components which must be listed on the label:

Naphtha (petroleum), hydrotreated light

Naphtha (petroleum), hydrodesulfurized heavy

### 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)

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Naphtha (petroleum), hydrotreated light	64742-49-0 265-151-9	Flam. Liq. 2; H225 Skin Irrit. 2; H315 STOT SE 3; H336 Asp. Tox. 1; H304 Aquatic Chronic 2; H411	>= 20 - < 25
Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1 265-185-4	Flam. Liq. 3; H226 STOT SE 3; H336 STOT RE 1; H372 Asp. Tox. 1; H304 Aquatic Chronic 2; H411	>= 10 - < 20
(Z)-N-9-Octadecenylpropane-1,3-diamine	7173-62-8 230-528-9	Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 STOT RE 1; H372 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0.25 - < 1

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately.  
When symptoms persist or in all cases of doubt seek medical advice.
- Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.
- If inhaled : If inhaled, remove to fresh air.  
Get medical attention if symptoms occur.
- In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.  
Get medical attention.  
Wash clothing before reuse.  
Thoroughly clean shoes before reuse.
- In case of eye contact : Flush eyes with water as a precaution.  
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.

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

Risks : Causes skin irritation.  
May cause drowsiness or dizziness.  
Causes damage to organs through prolonged or repeated exposure.

### 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 : In the event of fire, wear self-contained breathing apparatus.  
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.  
Use personal protective equipment.  
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.

## 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 with local exhaust ventilation.  
Use only in an area equipped with explosion proof exhaust ventilation.

Advice on safe handling : Do not get on skin or clothing.  
Do not breathe vapours or spray mist.  
Do not swallow.  
Avoid contact with eyes.  
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

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located close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use.

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

Requirements for storage areas and containers : Keep in properly labelled containers. Store locked up. 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  
Gases

### 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

Contains no substances with occupational exposure limit values.

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

Substance name	End Use	Exposure routes	Potential health effects	Value
(Z)-N-9-Octadecenylpropane-1,3-diamine	Workers	Inhalation	Long-term systemic effects	0.035 mg/m3
	Workers	Skin contact	Long-term systemic effects	0.01 mg/kg bw/day

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

Substance name	Environmental Compartment	Value
(Z)-N-9-Octadecenylpropane-1,3-diamine	Fresh water	0.010 mg/l

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	Marine water	0.001 mg/l
	Intermittent use/release	0.0029 mg/l
	Sewage treatment plant	0.251 mg/l
	Fresh water sediment	0.22 mg/kg
	Marine sediment	0.022 mg/kg
	Soil	10 mg/kg

### 8.2 Exposure controls

#### Engineering measures

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

#### Personal protective equipment

- Eye protection : Wear the following personal protective equipment:  
Safety glasses
- Hand protection  
Material : Impervious gloves  
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. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.
- Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.  
Wear the following personal protective equipment:  
Flame retardant antistatic protective clothing.  
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).
- 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

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : Aerosol containing a dissolved gas

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Colour	: white, translucent
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
Relative vapour density	: No data available
Relative density	: 0.87
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
Explosive properties	: Not explosive
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.

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

Information on likely routes of exposure : Inhalation  
Skin contact  
Ingestion  
Eye contact

##### Acute toxicity

Not classified based on available information.

##### Components:

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

Acute oral toxicity : LD50 (Rat): > 5,840 mg/kg  
Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): > 25.2 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rat): > 2,800 - 3,100 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity  
Remarks: Based on data from similar materials

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

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

Acute inhalation toxicity : LC50 (Rat): > 13.1 mg/l  
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 (Rat): > 4,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity  
Remarks: Based on data from similar materials

### **(Z)-N-9-Octadecenylpropane-1,3-diamine:**

Acute oral toxicity : LD50 (Rat): 500 mg/kg

### **Skin corrosion/irritation**

Causes skin irritation.

#### **Components:**

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

Species: Rabbit  
Result: Skin irritation  
Remarks: Based on data from similar materials

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

Species: Rabbit  
Method: OECD Test Guideline 404  
Result: No skin irritation  
Remarks: Based on data from similar materials

Assessment: Repeated exposure may cause skin dryness or cracking.

### **(Z)-N-9-Octadecenylpropane-1,3-diamine:**

Species: Rabbit  
Method: OECD Test Guideline 404  
Result: Corrosive after 3 minutes to 1 hour of exposure

### **Serious eye damage/eye irritation**

Not classified based on available information.

#### **Components:**

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

Species: Rabbit  
Result: No eye irritation

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

Species: Rabbit  
Method: OECD Test Guideline 405

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Result: No eye irritation  
Remarks: Based on data from similar materials

**(Z)-N-9-Octadecenylpropane-1,3-diamine:**

Result: Irreversible effects on the eye  
Remarks: Based on skin corrosivity.

**Respiratory or skin sensitisation**

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

**Components:**

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

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

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

Test Type: Maximisation Test  
Exposure routes: Skin contact  
Species: Guinea pig  
Method: OECD Test Guideline 406  
Result: negative  
Remarks: Based on data from similar materials

**Germ cell mutagenicity**

Not classified based on available information.

**Components:**

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

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro  
Result: negative  
Remarks: Based on data from similar materials

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

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

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro  
Result: negative  
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)  
Species: Mouse  
Application Route: Inhalation  
Result: negative  
Remarks: Based on data from similar materials

Germ cell mutagenicity- Assessment : Classified based on benzene content < 0.1% (Regulation (EC)

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assessment 1272/2008, Annex VI, Part 3, Note P)

**(Z)-N-9-Octadecenylpropane-1,3-diamine:**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test  
Method: OECD Test Guideline 476  
Result: negative

**Carcinogenicity**

Not classified based on available information.

**Components:**

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

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

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

Species: Rat  
Application Route: inhalation (vapour)  
Exposure time: 13 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)

**Reproductive toxicity**

Not classified based on available information.

**Components:**

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

Effects on fertility : Test Type: Two-generation reproduction toxicity study  
Species: Rat  
Application Route: inhalation (vapour)  
Result: negative  
Remarks: Based on data from similar materials

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

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

Effects on fertility : Test Type: Reproduction/Developmental toxicity screening  
test  
Species: Rat  
Application Route: inhalation (vapour)  
Result: negative  
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Rat

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Application Route: inhalation (vapour)  
Result: negative  
Remarks: Based on data from similar materials

### **(Z)-N-9-Octadecenylpropane-1,3-diamine:**

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Rat  
Application Route: Ingestion  
Method: OECD Test Guideline 414  
Result: negative

### **STOT - single exposure**

May cause drowsiness or dizziness.

#### **Components:**

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

Assessment: May cause drowsiness or dizziness.  
Remarks: Based on data from similar materials

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

Assessment: May cause drowsiness or dizziness.

### **STOT - repeated exposure**

Causes damage to organs through prolonged or repeated exposure.

#### **Components:**

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

Target Organs: Central nervous system  
Assessment: Causes damage to organs through prolonged or repeated exposure.

### **(Z)-N-9-Octadecenylpropane-1,3-diamine:**

Exposure routes: Ingestion  
Assessment: Shown to produce significant health effects in animals at concentrations of 10 mg/kg bw or less.

### **Repeated dose toxicity**

#### **Components:**

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

Species: Rat  
NOAEL: 24,300 mg/m<sup>3</sup>  
Application Route: inhalation (vapour)  
Exposure time: 13 Weeks  
Remarks: Based on data from similar materials

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

Species: Rat  
NOAEL: 2.34 mg/l  
LOAEL: 4.67 mg/l  
Application Route: inhalation (vapour)  
Exposure time: 6 Months

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Method: OECD Test Guideline 413  
Remarks: Based on data from similar materials

### **(Z)-N-9-Octadecenylpropane-1,3-diamine:**

Species: Rat  
NOAEL: 0.4 mg/kg  
Application Route: Ingestion  
Exposure time: 90 Days  
Method: OECD Test Guideline 408

### **Aspiration toxicity**

Not classified based on available information.

### **Components:**

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

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.

#### **Naphtha (petroleum), hydrodesulfurized 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.

### **Experience with human exposure**

### **Components:**

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

Inhalation : Target Organs: Central nervous system  
Symptoms: Dizziness, Headache, Neurological disorders

## **SECTION 12: Ecological information**

### **12.1 Toxicity**

### **Components:**

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

Toxicity to fish	: LL50 (Oncorhynchus mykiss (rainbow trout)): 12 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)): 3 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)): 30 - 100 mg/l Exposure time: 72 h Test substance: Water Accommodated Fraction

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Method: OECD Test Guideline 201  
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.17 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 211  
Remarks: Based on data from similar materials

Ecotoxicology Assessment  
Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

**Naphtha (petroleum), hydrodesulfurized 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)): 10 - 22 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)): 4.6 - 10 mg/l  
Exposure time: 72 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 201  
Remarks: Based on data from similar materials

NOELR (Pseudokirchneriella subcapitata (green algae)): 0.22 mg/l  
Exposure time: 72 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 201  
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR: 0.097 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Remarks: Based on data from similar materials

**(Z)-N-9-Octadecenylpropane-1,3-diamine:**

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 0.08 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203  
Remarks: Based on data from similar materials

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 0.013 - 0.025 mg/l

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aquatic invertebrates	Exposure time: 48 h
Toxicity to algae	: ErC50 (Desmodesmus subspicatus (green algae)): 0.507 mg/l Exposure time: 72 h Method: OECD Test Guideline 201  EC10 (Desmodesmus subspicatus (green algae)): 0.188 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
M-Factor (Acute aquatic toxicity)	: 10
Toxicity to bacteria	: EC50 : 66 mg/l Exposure time: 3 h Method: OECD Test Guideline 209
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC: 0.1 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

### 12.2 Persistence and degradability

#### Components:

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

Biodegradability	: Result: Readily biodegradable Biodegradation: 77 % Exposure time: 28 d Method: OECD Test Guideline 301F
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##### **Naphtha (petroleum), hydrodesulfurized heavy:**

Biodegradability	: Result: Readily biodegradable Biodegradation: 74.7 % Exposure time: 28 d Method: OECD Test Guideline 301F Remarks: Based on data from similar materials
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##### **(Z)-N-9-Octadecenylpropane-1,3-diamine:**

Biodegradability	: Result: Readily biodegradable Biodegradation: 62 % Exposure time: 28 d Remarks: Based on data from similar materials
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### 12.3 Bioaccumulative potential

#### Components:

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

Partition coefficient: n-octanol/water	: log Pow: > 4 Remarks: Expert judgement
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### **Naphtha (petroleum), hydrodesulfurized heavy:**

Partition coefficient: n-octanol/water	: log Pow: > 4
Remarks: Based on data from similar materials	

### **(Z)-N-9-Octadecenylpropane-1,3-diamine:**

Bioaccumulation	: Species: Fish
	Bioconcentration factor (BCF): > 500
Remarks: Based on data from similar materials	

Partition coefficient: n-octanol/water	: log Pow: 0.03
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### **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

## **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.
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)

## **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

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<b>RID</b>	: AEROSOLS
<b>IMDG</b>	: AEROSOLS ((Z)-N-9-Octadecenylpropane-1,3-diamine, Naphtha (petroleum), hydrotreated light)
<b>IATA</b>	: Aerosols, flammable

### 14.3 Transport hazard class(es)

<b>ADN</b>	: 2.1
<b>ADR</b>	: 2.1
<b>RID</b>	: 2.1
<b>IMDG</b>	: 2.1
<b>IATA</b>	: 2.1

### 14.4 Packing group

<b>ADN</b>	
Packing group	: Not assigned by regulation
Classification Code	: 5F
Labels	: 2.1

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

<b>RID</b>	
Packing group	: Not assigned by regulation
Classification Code	: 5F
Hazard Identification Number	: 23
Labels	: 2.1

<b>IMDG</b>	
Packing group	: Not assigned by regulation
Labels	: 2.1
EmS Code	: F-D, S-U

<b>IATA (Cargo)</b>	
Packing instruction (cargo aircraft)	: 203
Packing instruction (LQ)	: Y203
Packing group	: Not assigned by regulation
Labels	: Flammable Gas

<b>IATA (Passenger)</b>	
Packing instruction (passenger aircraft)	: 203
Packing instruction (LQ)	: Y203
Packing group	: Not assigned by regulation
Labels	: Flammable Gas

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### 14.5 Environmental hazards

**ADN**

Environmentally hazardous : yes

**ADR**

Environmentally hazardous : yes

**RID**

Environmentally hazardous : yes

**IMDG**

Marine pollutant : yes

### 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.

## 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

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
E2	ENVIRONMENTAL HAZARDS	200 t	500 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	2,500 t	25,000 t

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purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d)

18	Liquefied extremely flammable gases (including LPG) and natural gas	50 t	200 t
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Other regulations : Take note of Dir 94/33/EC on the protection of young people at work.

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).
PICCS	: Consult your local Dow Corning office.
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

H225	: Highly flammable liquid and vapour.
H226	: Flammable liquid and vapour.
H302	: Harmful if swallowed.
H304	: May be fatal if swallowed and enters airways.
H314	: Causes severe skin burns and eye damage.
H315	: Causes skin irritation.
H318	: Causes serious eye damage.
H336	: May cause drowsiness or dizziness.
H372	: Causes damage to organs through prolonged or repeated exposure.
H400	: Very toxic to aquatic life.

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H410 : Very toxic to aquatic life with long lasting effects.  
H411 : Toxic to aquatic life with long lasting effects.

### Full text of other abbreviations

Acute Tox.	: Acute toxicity
Aquatic Acute	: Acute aquatic toxicity
Aquatic Chronic	: Chronic aquatic toxicity
Asp. Tox.	: Aspiration hazard
Eye Dam.	: Serious eye damage
Flam. Liq.	: Flammable liquids
Skin Corr.	: Skin corrosion
Skin Irrit.	: Skin irritation
STOT RE	: Specific target organ toxicity - repeated exposure
STOT SE	: Specific target organ toxicity - single exposure

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; (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/>

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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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