according to Regulation (EC) No. 1907/2006



## MOLYKOTE(R) BR-2 PLUS HIGH PERFORMANCE GREASE

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 SDS Number:
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 Date of first issue: 25.11.2014

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

#### 1.1 Product identifier

Trade name : MOLYKOTE(R) BR-2 PLUS HIGH PERFORMANCE

**GREASE** 

Product code : 00000000001512854, 00000000001512854

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

Use of the Sub- : Lubricants and lubricant additives

stance/Mixture

#### 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)

Serious eye damage, Category 1 H318: Causes serious eye damage.

Chronic aquatic toxicity, Category 3 H412: Harmful to aquatic life with long lasting ef-

fects.

#### 2.2 Label elements

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

Hazard pictograms





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Signal word : Danger

Hazard statements : H318 Causes serious eye damage.

H412 Harmful to aquatic life with long lasting ef-

fects.

Precautionary statements : **Prevention:** 

P273 Avoid release to the environment. P280 Wear eye protection/ face protection.

Response:

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously

with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a

POISON CENTER/doctor.

Hazardous components which must be listed on the label:

Zinc (C1-C14) Dialkyldithiophosphate

#### 2.3 Other hazards

None known.

#### **SECTION 3: Composition/information on ingredients**

#### 3.2 Mixtures

Chemical nature : Molybdenum disulfide grease

#### **Hazardous components**

Chemical name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5 265-155-0	Asp. Tox. 1; H304	>= 30 - < 50
Distillates (petroleum), solvent- dewaxed heavy paraffinic	64742-65-0 265-169-7	Asp. Tox. 1; H304	>= 30 - < 50
Zinc (C1-C14) Dialkyldithiophos- phate	68649-42-3 272-028-3	Eye Dam. 1; H318 Aquatic Chronic 2; H411	>= 3 - < 10

#### **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 ad-

vice 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.



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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 : In case of contact, immediately flush eyes with plenty of water

for at least 15 minutes.

If easy to do, remove contact lens, if worn.

Get medical attention immediately.

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

Risks : Causes serious eye damage.

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 (CO2)

Dry chemical

Unsuitable extinguishing

media

: None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-

fighting

: Exposure to combustion products may be a hazard to health.

Hazardous combustion prod-

ucts

: Carbon oxides

Oxides of phosphorus Sulphur oxides

Metal 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 meth-

ods

: Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment.

Use water spray to cool unopened containers.

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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 : Use personal protective equipment.

Follow safe handling advice and personal protective equip-

ment recommendations.

#### 6.2 Environmental precautions

Environmental precautions : Discharge into the environment must be avoided.

Prevent further leakage or spillage if safe to do so. 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 : Soak up with inert absorbent material.

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 absor-

bent.

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 deter-

mine 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 only with adequate ventilation.

Advice on safe handling : Do not swallow.

Do not get in eyes.

Avoid prolonged or repeated contact with skin.

Handle in accordance with good industrial hygiene and safety

practice.

Keep container tightly closed.

Take care to prevent spills, waste and minimize release to the



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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.

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

Requirements for storage areas and containers

: Keep in properly labelled containers. Keep tightly closed. Store in accordance with the particular national regulations.

Advice on common storage : Do not store with the following product types:

Strong oxidizing agents

7.3 Specific end use(s)

Specific use(s) : These precautions are for room temperature handling. Use at

elevated temperature or aerosol/spray applications may re-

quire added precautions.

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

#### 8.1 Control parameters

#### **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Graphite	7782-42-5	TWA (inhalable dust)	10 mg/m3	GB EH40
Further information	fractions of air in accordance sampling and COSHH defin kind when present above these leads to the contain particular body responsed HSE distinguible and respinaterial that examples available for to the fraction definitions and contain composhould be contained.	rborne dust which with the methods degravimetric analysis ition of a substance issent at a concentrate of inhalable dust or 4 at any dust will be sevels. Some dusts he must comply with les of a wide range of lar particle after entre that it elicits, dependent of the mose and leposition in the respectation of the penetrates to the explanatory materionents that have the applied with., Where respectations and the penetrates to the penetrates t	espirable dust and inhalable II be collected when sampling escribed in MDHS14/3 Gene of respirable and inhalable of hazardous to health includes ion in air equal to or greater mg.m-3 8-hour TWA of respubject to COSHH if people a ave been assigned specific Variety the appropriate limit., Most in fisizes. The behaviour, depoy into the human respiratory and on the nature and size of the sample of the sample of the gas exchange region of the gas exchange region of the lare given in MDHS14/3., Variety of the specific short-term exposure should be used	g is undertaken ral methods for dust, The dust of any than 10 mg.m-3 irable dust. The exposed WELs and exposed wells and exposed wells and fate system and the the particle. The termed 'inhalan of airborne stherefore approximates e lung. Fuller where dusts relevant limits
		TWA (Respirable	4 mg/m3	GB EH40



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	dust)		
Further information	For the purposes of these limits, refractions of airborne dust which we in accordance with the methods of sampling and gravimetric analysis COSHH definition of a substance kind when present at a concentration 8-hour TWA of inhalable dust or 4. This means that any dust will be above these levels. Some dusts he posure to these must comply with contain particles of a wide range of any particular particle after entrody response that it elicits, depended and 'respirable'., Inhalable du material that enters the nose and available for deposition in the respito the fraction that penetrates to the definitions and explanatory matericontain components that have the should be complied with., Where a figure three times the long-term	ill be collected when sampling escribed in MDHS14/3 Gene of respirable and inhalable of hazardous to health includes ion in air equal to or greater to mg.m-3 8-hour TWA of respirable to COSHH if people at ave been assigned specific Variety the appropriate limit., Most in of sizes. The behaviour, depoy into the human respiratory and on the nature and size of the stapproximates to the fraction mouth during breathing and incipatory tract. Respirable dust ne gas exchange region of the all are given in MDHS14/3., Vair own assigned WEL, all the no specific short-term exposure.	g is undertaken ral methods for dust, The dust of any than 10 mg.m-3 irable dust. The exposed WELs and exnoustrial dusts sition and fate system and the the particle. The termed 'inhalan of airborne is therefore approximates e lung. Fuller Where dusts relevant limits

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

2011104 110 211001 201	o. (2.122) acco. a	mig to regulation	(==)	
Substance name	End Use	Exposure routes	Potential health effects	Value
Hydrogenated castor oil	Consumers	Skin contact	Long-term systemic effects	23.9 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	23.9 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	83 mg/m3
	Workers	Inhalation	Long-term systemic effects	336.75 mg/m3
	Workers	Skin contact	Long-term systemic effects	47.75 mg/kg bw/day
Graphite	Consumers	Inhalation	Long-term local ef- fects	0.3 mg/m3
	Consumers	Ingestion	Long-term systemic effects	813 mg/kg bw/day
	Workers	Inhalation	Long-term local effects	1.2 mg/m3

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

Substance name	Environmental Compartment	Value
Residual oils (petroleum), solvent-	Oral	9.33 mg/kg



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dewaxed

#### 8.2 Exposure controls

#### **Engineering measures**

Ensure adequate ventilation, especially in confined areas.

Minimize workplace exposure concentrations.

Personal protective equipment

Eye protection : Wear the following personal protective equipment:

Chemical resistant goggles must be worn. If splashes are likely to occur, wear:

Face-shield

Hand protection

Material : Impervious 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 re-

sistance data and an assessment of the local exposure poten-

tial.

Skin contact must be avoided by using impervious protective

clothing (gloves, aprons, boots, etc).

Respiratory protection : Use respiratory protection unless adequate local exhaust ven-

tilation is provided or exposure assessment demonstrates that

exposures are within recommended exposure guidelines.

Filter type : Combined particulates and organic vapour type (A-P)

#### **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

Appearance : Grease

Colour : black

Odour : slight

Odour Threshold : No data available

pH : Not applicable

Melting point/freezing point : No data available

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Initial boiling point and boiling

range

: Not applicable

Flash point : Not applicable

Evaporation rate : Not applicable

Flammability (solid, gas) : Not classified as a flammability hazard

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : Not applicable

Relative vapour density : No data available

Relative density : 0.89

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

#### **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 : Can react with strong oxidizing agents.

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10.4 Conditions to avoid

Conditions to avoid : None known.

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 : Skin contact

exposure Ingestion

Eye contact

**Acute toxicity** 

Not classified based on available information.

**Components:** 

Distillates (petroleum), hydrotreated heavy naphthenic:

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

Method: OECD Test Guideline 401

Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): > 5.53 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: Based on data from similar materials

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

Method: OECD Test Guideline 402

Remarks: Based on data from similar materials

Distillates (petroleum), solvent-dewaxed heavy paraffinic:

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

Method: OECD Test Guideline 401

Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): > 5.53 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: Based on data from similar materials

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

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Method: OECD Test Guideline 402

Remarks: Based on data from similar materials

Zinc (C1-C14) Dialkyldithiophosphate:

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

#### Skin corrosion/irritation

Not classified based on available information.

#### **Components:**

#### Distillates (petroleum), hydrotreated heavy naphthenic:

Species: Rabbit

Result: No skin irritation

Remarks: Based on data from similar materials

#### Distillates (petroleum), solvent-dewaxed heavy paraffinic:

Species: Rabbit

Result: No skin irritation

Remarks: Based on data from similar materials

#### Zinc (C1-C14) Dialkyldithiophosphate:

Species: Rabbit

Result: No skin irritation

#### Serious eye damage/eye irritation

Causes serious eye damage.

#### Components:

#### Distillates (petroleum), hydrotreated heavy naphthenic:

Species: Rabbit Result: No eye irritation

Remarks: Based on data from similar materials

#### Distillates (petroleum), solvent-dewaxed heavy paraffinic:

Species: Rabbit

Method: OECD Test Guideline 405

Result: No eye irritation

Remarks: Based on data from similar materials

#### Zinc (C1-C14) Dialkyldithiophosphate:

Species: Rabbit

Result: Irreversible effects on the eye

#### Respiratory or skin sensitisation

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

#### **Components:**

#### Distillates (petroleum), hydrotreated heavy naphthenic:

Test Type: Buehler Test Exposure routes: Skin contact

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Species: Guinea pig Result: negative

Remarks: Based on data from similar materials

### Distillates (petroleum), solvent-dewaxed heavy paraffinic:

Test Type: Buehler 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:**

#### Distillates (petroleum), hydrotreated heavy naphthenic:

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

Method: OECD Test Guideline 471

Result: negative

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

cytogenetic assay) Species: Mouse

Application Route: Intraperitoneal injection Method: OECD Test Guideline 474

Result: negative

Remarks: Based on data from similar materials

#### Distillates (petroleum), solvent-dewaxed heavy paraffinic:

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

Method: OECD Test Guideline 471

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: Intraperitoneal injection Method: OECD Test Guideline 474

Result: negative

Remarks: Based on data from similar materials

#### Carcinogenicity

Not classified based on available information.

#### **Components:**

#### Distillates (petroleum), hydrotreated heavy naphthenic:

Species: Mouse

Application Route: Skin contact Exposure time: 78 weeks

Method: OECD Test Guideline 451

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Result: negative

Carcinogenicity - Assess-

: Classified based on DMSO extract content < 3% (Regulation

nent (EC) 1272/2008, Annex VI, Part 3, Note L)

Distillates (petroleum), solvent-dewaxed heavy paraffinic:

Species: Mouse

Application Route: Skin contact Exposure time: 78 weeks

Method: OECD Test Guideline 451

Result: negative

Carcinogenicity - Assess- : Classified based on DMSO extract content < 3% (Regulation

ment (EC) 1272/2008, Annex VI, Part 3, Note L)

Reproductive toxicity

Not classified based on available information.

**Components:** 

Distillates (petroleum), hydrotreated heavy naphthenic:

Effects on fertility : Test Type: Reproduction/Developmental toxicity screening

test

Species: Rat

Application Route: Ingestion

Result: negative

Remarks: Based on data from similar materials

Effects on foetal develop-

ment

: Test Type: Embryo-foetal development

Species: Rat

Application Route: Skin contact

Result: negative

Remarks: Based on data from similar materials

Distillates (petroleum), solvent-dewaxed heavy paraffinic:

Effects on fertility : Test Type: Reproduction/Developmental toxicity screening

test

Species: Rat

Application Route: Ingestion

Result: negative

Remarks: Based on data from similar materials

Effects on foetal develop-

ment

: Test Type: Embryo-foetal development

Species: Rat

Application Route: Skin contact Method: OECD Test Guideline 414

Result: negative

Remarks: Based on data from similar materials

STOT - single exposure

Not classified based on available information.

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#### STOT - repeated exposure

Not classified based on available information.

#### Repeated dose toxicity

#### Components:

#### Distillates (petroleum), hydrotreated heavy naphthenic:

Species: Rat

NOAEL: > 0.98 mg/l

Application Route: inhalation (dust/mist/fume)

Exposure time: 28 Days

Remarks: Based on data from similar materials

#### Distillates (petroleum), solvent-dewaxed heavy paraffinic:

Species: Rabbit NOAEL: 1,000 mg/kg

Application Route: Skin contact Exposure time: 4 Weeks

Method: OECD Test Guideline 410

Remarks: Based on data from similar materials

Species: Rat

NOAEL: > 980 mg/m3

Application Route: inhalation (dust/mist/fume)

Exposure time: 4 Weeks

Remarks: Based on data from similar materials

#### **Aspiration toxicity**

Not classified based on available information.

#### **Components:**

#### Distillates (petroleum), hydrotreated heavy naphthenic:

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.

#### Distillates (petroleum), solvent-dewaxed heavy paraffinic:

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.

#### **SECTION 12: Ecological information**

#### 12.1 Toxicity

#### **Components:**

#### Distillates (petroleum), hydrotreated heavy naphthenic:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Remarks: Based on data from similar materials

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): > 10,000 mg/l

Exposure time: 48 h

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Remarks: Based on data from similar materials

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

Toxicity to bacteria : NOEC : > 1.93 mg/l

Exposure time: 10 min

Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chron-

: NOEC: 10 mg/l Exposure time: 21 d

ic toxicity)

Species: Daphnia magna (Water flea)

Remarks: Based on data from similar materials

Distillates (petroleum), solvent-dewaxed heavy paraffinic:

: LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l Toxicity to fish

Exposure time: 96 h

Method: OECD Test Guideline 203

Remarks: Based on data from similar materials

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): > 10,000 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Remarks: Based on data from similar materials

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

Toxicity to bacteria NOEC: > 1.93 mg/l

Exposure time: 10 min Method: DIN 38 412 Part 8

Remarks: Based on data from similar materials

Toxicity to daphnia and other

aquatic invertebrates (Chron-

ic toxicity)

: NOEC: 10 mg/l

Exposure time: 21 d

Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

Remarks: Based on data from similar materials

Zinc (C1-C14) Dialkyldithiophosphate:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): 4.5 mg/l

Exposure time: 96 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 203

Remarks: Based on data from similar materials

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aquatic invertebrates

Toxicity to daphnia and other : EL50 (Daphnia magna (Water flea)): 23 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Remarks: Based on data from similar materials

Toxicity to algae : EL50 (Desmodesmus subspicatus (green algae)): 21 mg/l

Exposure time: 72 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

: EC50 : > 10,000 mg/l Toxicity to bacteria

Exposure time: 3 h

Method: OECD Test Guideline 209

Remarks: Based on data from similar materials

Toxicity to daphnia and other

aquatic invertebrates (Chron-

ic toxicity)

: NOEC: 4 mg/l

Exposure time: 21 d

Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

Remarks: Based on data from similar materials

#### 12.2 Persistence and degradability

#### Components:

#### Distillates (petroleum), hydrotreated heavy naphthenic:

Biodegradability Result: Not readily biodegradable.

Biodegradation: 2 - 4 % Exposure time: 28 d

Method: OECD Test Guideline 301B

#### Distillates (petroleum), solvent-dewaxed heavy paraffinic:

Result: Not readily biodegradable. Biodegradability

> Biodegradation: 2 - 8 % Exposure time: 28 d

Method: OECD Test Guideline 301B

#### Zinc (C1-C14) Dialkyldithiophosphate:

Biodegradability : Result: Not readily biodegradable.

> Biodegradation: 1.5 % Exposure time: 28 d

Remarks: Based on data from similar materials

#### 12.3 Bioaccumulative potential

No data available

#### 12.4 Mobility in soil

No data available

#### 12.5 Results of PBT and vPvB assessment

Not relevant

according to Regulation (EC) No. 1907/2006



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#### 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 han-

dling site for recycling or disposal.

If not otherwise specified: Dispose of as unused product.

#### **SECTION 14: Transport information**

#### 14.1 UN number

Not regulated as a dangerous good

#### 14.2 UN proper shipping name

Not regulated as a dangerous good

#### 14.3 Transport hazard class(es)

Not regulated as a dangerous good

#### 14.4 Packing group

Not regulated as a dangerous good

#### 14.5 Environmental hazards

Not regulated as a dangerous good

#### 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 de-

plete the ozone layer

: Not applicable

according to Regulation (EC) No. 1907/2006



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

lutants

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

Not applicable

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

KECI : All ingredients listed, exempt or notified.

TSCA : All chemical substances in this material are included on or

exempted from listing on the TSCA Inventory of Chemical

Substances.

ENCS/ISHL : All components are listed on ENCS/ISHL or exempted from

inventory listing.

DSL : All chemical substances in this product comply with the CEPA

1999 and NSNR and are on or exempt from listing on the Ca-

nadian Domestic Substances List (DSL).

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

AICS : All ingredients listed or exempt.

IECSC : All ingredients listed or exempt.

PICCS : All ingredients listed or exempt.

NZIoC : 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**

H304 : May be fatal if swallowed and enters airways.

H318 : Causes serious eye damage.

H411 : Toxic to aquatic life with long lasting effects.

#### Full text of other abbreviations

Aquatic Chronic : Chronic aquatic toxicity
Asp. Tox. : Aspiration hazard
Eye Dam. : Serious eye damage

GB EH40 : UK. EH40 WEL - Workplace Exposure Limits

GB EH40 / TWA : Long-term exposure limit (8-hour TWA 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



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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 Agen-

cy, 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.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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