**Ashland always solving	Page: 1
SAFETY DATA SHEET	Revision Date: 07.11.2016
	Print Date: 12.12.2018
	SDS Number: R0718724
Optiphen™ 200 preservative  ™ Trademark, Ashland or its subsidiaries, registered in various countries 846991	Version: 1.1

Conforms to EU Regulation 1907/2006/EC as amended. - SDSGHS\_BE

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

1.1 Product identifier

Trade name : Optiphen™ 200

preservative

™ Trademark, Ashland or its subsidiaries, registered in

various countries

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

Use of the : Skin-care

substance/mixture

1.3 Details of the supplier of the safety data sheet	<b>1.4 Emergency telephone number</b> +1-800-274-5263/001-859-357-3564, or contact
Ashland P.O. Box 8619	your local emergency telephone number at 070/245.245
NL3009 AP, Rotterdam Netherlands +31 10 497 5000 (in the Netherlands), or	070/245.245
contact your local CSR contact person	Product Information +31 10 497 5000 (in the Netherlands), or contact your local CSR contact person
EUSMT@ashland.com	

## **SECTION 2: Hazards identification**

## 2.1 Classification of the substance or mixture

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

Eye irritation, Category 2 H319: Causes serious eye irritation.

#### 2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Ashland™ always solving	Page: 2
SAFETY DATA SHEET	Revision Date: 07.11.2016
	Print Date: 12.12.2018
	SDS Number: R0718724
Optiphen™ 200 preservative  ™ Trademark, Ashland or its subsidiaries, registered in various countries 846991	Version: 1.1

Hazard pictograms :



Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.

Precautionary statements : Prevention:

P264 Wash skin thoroughly after handling. P280 Wear eye protection/ face protection.

Response:

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

water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing.

P337 + P313 If eye irritation persists: Get medical advice/

attention.

## 2.3 Other hazards

## **Additional advice**

No information available.

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

## 3.2 Mixtures

## **Hazardous components**

Chemical name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
2-Phenoxyethanol	122-99-6 204-589-7	Acute Tox.4; H302 Eye Irrit.2; H319	>= 70,00 - < 80,00
Octane-1,2-diol	1117-86-8 214-254-7	Eye Irrit.2; H319	>= 25,00 - < 40,00

For explanation of abbreviations see section 16.

**Ashland always solving	Page: 3
SAFETY DATA SHEET	Revision Date: 07.11.2016
	Print Date: 12.12.2018
	SDS Number: R0718724
Optiphen™ 200 preservative ™ Trademark, Ashland or its subsidiaries, registered in various countries 846991	Version: 1.1

## **SECTION 4: First aid measures**

### 4.1 Description of first aid measures

General advice : Move out of dangerous area.

Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

If inhaled : If breathed in, move person into fresh air.

If unconscious place in recovery position and seek medical

advice.

If symptoms persist, call a physician.

In case of skin contact : First aid is not normally required. However, it is

recommended that exposed areas be cleaned by washing

with soap and water.

In case of eye contact : Immediately flush eye(s) with plenty of water.

Remove contact lenses. Protect unharmed eye.

If swallowed : IF SWALLOWED: Call a POISON CENTER/doctor if you feel

unwell.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.

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

Symptoms : Signs and symptoms of exposure to this material through

breathing, swallowing, and/or passage of the material through

the skin may include:

stomach or intestinal upset (nausea, vomiting, diarrhea)

irritation (nose, throat, airways) pain in the abdomen and lower back

acute kidney failure (sudden slowing or stopping of urine

production)

Risks : Causes serious eye irritation.

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

Treatment : No hazards which require special first aid measures.

**Ashland always solving	Page: 4
SAFETY DATA SHEET	Revision Date: 07.11.2016
	Print Date: 12.12.2018
	SDS Number: R0718724
Optiphen™ 200 preservative  ™ Trademark, Ashland or its subsidiaries, registered in various countries 846991	Version: 1.1

## **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Water spray Foam

Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

: High volume water jet

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

Specific hazards during

firefighting

: If product is heated above its flash point it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and be ignited by heat, pilot lights, other flames and ignition sources at locations near the

point of release.

Do not allow run-off from fire fighting to enter drains or water

courses.

#### 5.3 Advice for firefighters

for firefighters

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

Specific extinguishing

methods

: Product is compatible with standard fire-fighting agents.

Further information : Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

#### **SECTION 6: Accidental release measures**

## 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Persons not wearing protective equipment should be excluded

**Ashland** always solving	Page: 5
SAFETY DATA SHEET	Revision Date: 07.11.2016
	Print Date: 12.12.2018
	SDS Number: R0718724
Optiphen™ 200 preservative  ™ Trademark, Ashland or its subsidiaries, registered in various countries 846991	Version: 1.1

from area of spill until clean-up has been completed.

Comply with all applicable federal, state, and local regulations.

## 6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

## 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel,

acid binder, universal binder, sawdust).

Keep in suitable, closed containers for disposal.

#### 6.4 Reference to other sections

For further information see Section 8 and Section 13 of the safety data sheet.

#### **SECTION 7: Handling and storage**

## 7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapours/dust.

Do not smoke.

Container hazardous when empty. Avoid contact with skin and eyes.

Smoking, eating and drinking should be prohibited in the

application area.

For personal protection see section 8.

Dispose of rinse water in accordance with local and national

regulations.

Advice on protection against

fire and explosion

: Normal measures for preventive fire protection.

Hygiene measures : Wash hands before breaks and at the end of workday. When

using do not eat or drink. When using do not smoke.

## 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical

**Ashland always solving	Page: 6
SAFETY DATA SHEET	Revision Date: 07.11.2016
	Print Date: 12.12.2018
	SDS Number: R0718724
Optiphen™ 200 preservative  ™ Trademark, Ashland or its subsidiaries, registered in various countries 846991	Version: 1.1

installations / working materials must comply with the technological safety standards. Protect from frost.

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : No data available

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

## 8.1 Control parameters

Contains no substances with occupational exposure limit values.

#### 8.2 Exposure controls

### **Engineering measures**

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

## Personal protective equipment

Eye protection : Wear chemical splash goggles when there is the potential for

exposure of the eyes to liquid, vapor or mist.

Hand protection

Remarks : The suitability for a specific workplace should be discussed

with the producers of the protective gloves.

Skin and body protection : Wear as appropriate:

Impervious clothing Safety shoes

Choose body protection according to the amount and

concentration of the dangerous substance at the work place.

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

## 9.1 Information on basic physical and chemical properties

**Ashland always solving	Page: 7
SAFETY DATA SHEET	Revision Date: 07.11.2016
	Print Date: 12.12.2018
	SDS Number: R0718724
Optiphen™ 200 preservative ™ Trademark, Ashland or its subsidiaries, registered in various countries 846991	Version: 1.1

Appearance : liquid

Odour : No data available

Odour Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Boiling point/boiling range : No data available

Flash point : 127 °C

Evaporation rate : No data available

Flammability (solid, gas) : No data available

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 : No data available

Density : 1,044 - 1,06 g/cm3 (25 °C)

Solubility(ies)

Water solubility : No data available

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

: No data available

Thermal decomposition : No data available

Viscosity

Viscosity, dynamic : No data available

**Ashland always solving	Page: 8
SAFETY DATA SHEET	Revision Date: 07.11.2016
	Print Date: 12.12.2018
	SDS Number: R0718724
Optiphen <sup>™</sup> 200 preservative <sup>™</sup> Trademark, Ashland or its subsidiaries, registered in various countries 846991	Version: 1.1

Viscosity, kinematic : No data available

Oxidizing properties : No data available

### 9.2 Other information

No data available

# **SECTION 10: Stability and reactivity**

## 10.1 Reactivity

No decomposition if stored and applied as directed.

## 10.2 Chemical stability

Stable under recommended storage conditions.

## 10.3 Possibility of hazardous reactions

Hazardous reactions : Product will not undergo hazardous polymerization.

10.4 Conditions to avoid

Conditions to avoid : excessive heat

Do not allow evaporation to dryness.

10.5 Incompatible materials

Materials to avoid : Strong bases

Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition

products

: No hazardous decomposition products are known.

## **SECTION 11: Toxicological information**

## 11.1 Information on toxicological effects

Information on likely routes of : Inhalation

exposure

: Inhalation Skin contact

> Eye Contact Ingestion

**Ashland always solving	Page: 9
SAFETY DATA SHEET	Revision Date: 07.11.2016
	Print Date: 12.12.2018
	SDS Number: R0718724
Optiphen™ 200 preservative  ™ Trademark, Ashland or its subsidiaries, registered in various countries 846991	Version: 1.1

## **Acute toxicity**

Not classified based on available information.

#### Components:

2-PHENOXYETHANOL:

Acute oral toxicity : LD 50 (Rat): 1.850 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : Assessment: No adverse effect has been observed in acute

inhalation toxicity tests.

**Components:** 

1,2-OCTANEDIOL:

Acute oral toxicity : LD 50 (Rat): > 2.000 mg/kg

Method: OECD Test Guideline 401

GLP: yes

Assessment: No adverse effect has been observed in acute

oral toxicity tests.

Acute inhalation toxicity : LC 50 (Rat): > 7,015 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Remarks: Information given is based on data obtained from

similar substances.

## Skin corrosion/irritation

Not classified based on available information.

#### **Product:**

Remarks: May cause skin irritation in susceptible persons.

## **Components:**

#### 2-PHENOXYETHANOL:

Species: Rabbit

Result: No skin irritation

## 1,2-OCTANEDIOL:

Species: Rabbit

Result: No skin irritation

**Ashland always solving	Page: 10
SAFETY DATA SHEET	Revision Date: 07.11.2016
	Print Date: 12.12.2018
	SDS Number: R0718724
Optiphen™ 200 preservative  ™ Trademark, Ashland or its subsidiaries, registered in various countries 846991	Version: 1.1

## Serious eye damage/eye irritation

Causes serious eye irritation.

#### **Product:**

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin., Causes serious eye irritation.

### **Components:**

## 2-PHENOXYETHANOL:

Species: Rabbit

Result: Irritating to eyes.

### 1,2-OCTANEDIOL:

Result: Irritating to eyes.

## Respiratory or skin sensitisation

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

#### **Components:**

## **2-PHENOXYETHANOL:**

Species: Guinea pig

Assessment: Does not cause skin sensitisation.

Method: OECD Test Guideline 406

#### 1,2-OCTANEDIOL:

Test Type: Local lymph node assay

Species: Mouse

Assessment: Did not cause sensitisation on laboratory animals.

Method: OECD Test Guideline 429

GLP: yes

## Germ cell mutagenicity

Not classified based on available information.

## **Components:**

#### 2-PHENOXYETHANOL:

Genotoxicity in vitro : Test Type: Ames test

Test species: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Result: negative

## 1,2-OCTANEDIOL:

**Ashland always solving	Page: 11
SAFETY DATA SHEET	Revision Date: 07.11.2016
	Print Date: 12.12.2018
	SDS Number: R0718724
Optiphen™ 200 preservative  ™ Trademark, Ashland or its subsidiaries, registered in various countries 846991	Version: 1.1

Genotoxicity in vitro : Test Type: Ames test

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

GLP: yes

## Carcinogenicity

Not classified based on available information.

## Reproductive toxicity

Not classified based on available information.

## STOT - single exposure

Not classified based on available information.

## STOT - repeated exposure

Not classified based on available information.

## **Aspiration toxicity**

Not classified based on available information.

## **Product:**

No aspiration toxicity classification

#### **Further information**

#### **Product:**

Remarks: No data available

## **SECTION 12: Ecological information**

#### 12.1 Toxicity

#### Components:

2-Phenoxyethanol

Toxicity to fish : LC 50 (Fathead minnow (Pimephales promelas)): 337 - 352

mg/l

Exposure time: 96 h
Test Type: flow-through test

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 500 mg/l

**Ashland always solving	Page: 12
SAFETY DATA SHEET	Revision Date: 07.11.2016
	Print Date: 12.12.2018
	SDS Number: R0718724
Optiphen™ 200 preservative  ™ Trademark, Ashland or its subsidiaries, registered in various countries 846991	Version: 1.1

aquatic invertebrates Exposure time: 48 h

Test Type: static test

Method: OECD Test Guideline 202

Toxicity to algae : NOEC (Desmodesmus subspicatus (green algae)): > 500 mg/l

End point: Growth inhibition

Exposure time: 72 h Test Type: static test

Toxicity to fish (Chronic

toxicity)

: NOEC: 23 mg/l

Exposure time: 34 d

Species: Pimephales promelas (fathead minnow)

Test Type: flow-through test Method: OECD Test Guideline 210

Toxicity to daphnia and other

aquatic invertebrates (Chronic toxicity)

: NOEC: 9,43 mg/l Exposure time: 21 d

> End point: Reproduction Test Species: Daphnia (water flea) Test Type: semi-static test

Method: OECD Test Guideline 211

Octane-1,2-diol

Toxicity to fish : LC 50 (Danio rerio (zebra fish)): > 2,2 - < 22,2 mg/l

Exposure time: 96 h Test Type: static test

Toxicity to daphnia and other

aquatic invertebrates

: EC 50 (Water flea (Daphnia magna)): 176 mg/l

Exposure time: 48 h Test Type: semi-static test

Method: OECD Test Guideline 202

Toxicity to algae : EC 50 (Pseudokirchneriella subcapitata (green algae)): 35

mg/l

End point: Growth inhibition Exposure time: 72 h

Method: OECD Test Guideline 201

GLP: yes

#### 12.2 Persistence and degradability

#### **Components:**

2-Phenoxyethanol

Biodegradability : Result: Readily biodegradable

<b>P</b> Ashland always solving	Page: 13
SAFETY DATA SHEET	Revision Date: 07.11.2016
	Print Date: 12.12.2018
	SDS Number: R0718724
Optiphen™ 200 preservative  ™ Trademark, Ashland or its subsidiaries, registered in various countries 846991	Version: 1.1

Biodegradation: 99 % Exposure time: 28 d

Method: OECD Test Guideline 301F

Octane-1,2-diol

Biodegradability : Result: Readily biodegradable

Biodegradation: 75 % Exposure time: 28 d

Method: OECD Test Guideline 301D Remarks: Readily biodegradable

## 12.3 Bioaccumulative potential

**Product:** 

Bioaccumulation : Remarks: The bioaccumulation potential cannot be

determined.

**Components:** 

2-Phenoxyethanol

Partition coefficient: n-

octanol/water

: log Pow: 1,16

Octane-1,2-diol

Partition coefficient: n-

octanol/water

: log Pow: 1,0

## 12.4 Mobility in soil

No data available

# 12.5 Results of PBT and vPvB assessment

Not relevant

#### 12.6 Other adverse effects

**Product:** 

Additional ecological

information

: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life.

## **SECTION 13: Disposal considerations**

## 13.1 Waste treatment methods

Ashland always solving	Page: 14
SAFETY DATA SHEET	Revision Date: 07.11.2016
	Print Date: 12.12.2018
	SDS Number: R0718724
Optiphen™ 200 preservative  ™ Trademark, Ashland or its subsidiaries, registered in various countries 846991	Version: 1.1

Product : The product should not be allowed to enter drains, water

courses or the soil.

Do not contaminate ponds, waterways or ditches with

chemical or used container.

Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product.

Empty containers should be taken to an approved waste

handling site for recycling or disposal. Do not re-use empty containers.

## **SECTION 14: Transport information**

**SECTION 14: Transport information** 

14.1 UN number

ADN:

ADR:

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:** 

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:

**INTERNATIONAL MARITIME DANGEROUS GOODS:** 

RID:

14.2 UN proper shipping name

ADN:

ADR:

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:** 

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:

INTERNATIONAL MARITIME DANGEROUS GOODS:

RID:

14.3 Transport hazard class(es)

ADN:

ADR:

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:** 

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:

INTERNATIONAL MARITIME DANGEROUS GOODS:

RID:

**Ashland always solving	Page: 15
SAFETY DATA SHEET	Revision Date: 07.11.2016
	Print Date: 12.12.2018
	SDS Number: R0718724
Optiphen™ 200 preservative  ™ Trademark, Ashland or its subsidiaries, registered in various countries 846991	Version: 1.1

#### 14.4 Packing group

ADN:

ADR:

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:** INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:

**INTERNATIONAL MARITIME DANGEROUS GOODS:** 

RID:

#### 14.5 Environmental hazards

ADN: Not applicable ADR: Not applicable

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not applicable

INTERNATIONAL MARITIME DANGEROUS GOODS: Not applicable

**RID:** Not applicable

## 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

Ship Type: Not applicable Hazard code(s): Not applicable Pollutant Category: Not applicable

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

## **SECTION 15: Regulatory information**

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

REACH - Candidate List of Substances of Very High : Not applicable

Concern for Authorisation (Article 57).

REACH - List of substances subject to authorisation : Not applicable (Annex XIV)

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances,

: Not applicable

**Ashland always solving	Page: 16
SAFETY DATA SHEET	Revision Date: 07.11.2016
	Print Date: 12.12.2018
	SDS Number: R0718724
Optiphen™ 200 preservative	Version: 1.1
™ Trademark, Ashland or its subsidiaries, registered in various countries	
846991	

preparations and articles (Annex XVII)

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

pollutants

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:

TSCA : On TSCA Inventory

DSL All components of this product are on the Canadian DSL

AICS On the inventory, or in compliance with the inventory

ENCS On the inventory, or in compliance with the inventory

KECI On the inventory, or in compliance with the inventory

PICCS Not in compliance with the inventory

IECSC On the inventory, or in compliance with the inventory

#### **Inventories**

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

#### 15.2 Chemical safety assessment

No data available

## **SECTION 16: Other information**

Further information Revision Date: 07.11.2016

### **Full text of H-Statements**

Page: 17
Revision Date: 07.11.2016
Print Date: 12.12.2018
SDS Number: R0718724
Version: 1.1

H302 Harmful if swallowed.

**H319** Causes serious eye irritation.

Other information : The information accumulated herein is believed to be accurate

but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Ashland's Environmental Health and Safety Department (+31)

10 497 5000).

Sources of key data used to compile the Safety Data Sheet Ashland internal data including own and sponsored test reports

The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet:

ACGIH: American Conference of Industrial Hygienists

BEI: Biological Exposure Index

CAS: Chemical Abstracts Service (Division of the American Chemical Society).

CMR: Carcinogenic, Mutagenic or Toxic for Reproduction

FG: Food grade

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

H-statement : Hazard Statement

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO: International Civil Aviation Organization

ICAO-TI (ICAO): Technical Instructions by the "International Civil Aviation Organization"

IMDG: International Maritime Code for Dangerous Goods

ISO: International Organization for Standardization

logPow: octanol-water partition coefficient

LCxx: Lethal Concentration, for xx percent of test population

LDxx: Lethal Dose, for xx percent of test population. ICxx: Inhibitory Concentration for xx of a substance

Ecxx : Effective Concentration of xx N.O.S.: Not Otherwise Specified

OECD: Organization for Economic Co-operation and Development

**OEL**: Occupational Exposure Limit

**Ashland always solving	Page: 18
SAFETY DATA SHEET	Revision Date: 07.11.2016
	Print Date: 12.12.2018
	SDS Number: R0718724
Optiphen™ 200 preservative  ™ Trademark, Ashland or its subsidiaries, registered in various countries 846991	Version: 1.1

P-Statement : Precautionary Statement PBT : Persistent , Bioaccumulative and Toxic

PPE: Personal Protective Equipment STEL: Short-term exposure limit STOT: Specific Target Organ Toxicity

TLV: Threshold Limit Value TWA: Time-weighted average

vPvB: Very Persistent and Very Bioaccumulative

WEL: Workplace Exposure Level

ABM: Water Hazard Class for the Netherlands

ADR: Agreement concerning the International Carriage of Dangerous Goods by Road.

ADNR: Regulation for the Carriage of Dangerous Substances on the Rhine

CLP: Classification, Labelling and Packaging

CSA: Chemical Safety Assessment CSR: Chemical Safety Report DNEL: Derived No Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances.

**ELINCS**: European List of Notified Chemical Substances

GV: Exposure limits (DK)

PEC : Predicted Effect Concentration PEL : Permissible Exposure Limits

PNEC: Predicted No Effect Concentration

R-phrase: Risk phrase

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail

S-phrase: Safety phrase

WGK: German Water Hazard Class