# This SDS packet was issued with item:

078940695

N/A

# Aservo® EquiHaler®



Date of last issue: 11/05/2019 Version Revision Date: SDS Number: 03/30/2020 000000046611 Date of first issue: 10/28/2019 2.0

**SECTION 1. IDENTIFICATION** 

Product name : Aservo® EquiHaler®

Synonyms Ciclesonide 30 mg/mL Inhalation Solution for horses

Equine Respimat® Inhaler and cartridge with 4.3 mL ethanolic

Int. Emergency Telephone number: +1 703-527-3887

inhalation solution for horses

Manufacturer or supplier's details

Company name of supplier Boehringer Ing. Pharma GmbH & Co.KG

Address Binger Straße 173

Ingelheim 55216

Telephone +498007790900

Prepared by EHS-Services@Boehringer-Ingelheim.com

Emergency telephone num-

Chemtrec 24-hours ber

Recommended use of the chemical and restrictions on use

Recommended use : Medicine

Restrictions on use : Safety Data Sheet only for the professional user.

#### **SECTION 2. HAZARDS IDENTIFICATION**

GHS classification in accordance with 29 CFR 1910.1200

Flammable liquids Category 2

Eye irritation Category 2A

Carcinogenicity Category 1A

Reproductive toxicity Category 2

**GHS** label elements

Hazard pictograms





Signal word Danger

Hazard statements H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H350 May cause cancer.

H361d Suspected of damaging the unborn child.

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Precautionary statements

#### Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

### Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

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

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

#### Storage:

P403 + P235 Store in a well-ventilated place. Keep cool. P405 Store locked up.

#### Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

### Other hazards

This drug is not subject to the labelling requirements under the Globally Harmonized System (GHS)

The pharmacological effect of the medicament has to be considered (see package leaflet).

#### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

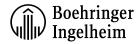
Substance / Mixture : Mixture

Chemical nature : organic

### **Hazardous components**

Chemical name	CAS-No.	Concentration (% w/w)
Ethanol	64-17-5	>= 70 - < 90
Ciclesonide	126544-47-6	>= 1 - < 5

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Actual concentration is withheld as a trade secret

#### **SECTION 4. FIRST AID MEASURES**

General advice In the case of accident or if you feel unwell, seek medical ad-

vice immediately (show the label where possible).

First Aid responders should pay attention to self-protection

and use the recommended protective clothing

Remove from exposure, lie down.

Take off immediately all contaminated clothing.

Victim to lie down in the recovery position, cover and keep him

warm.

If inhaled Move to fresh air.

In case of skin contact Wash off immediately with plenty of water.

In case of eye contact Rinse immediately with plenty of water for at least 15 minutes.

Keep eye wide open while rinsing.

If swallowed Rinse mouth.

Drink plenty of water.

Most important symptoms

and effects, both acute and

delayed

Causes serious eye irritation.

May cause cancer.

Suspected of damaging the unborn child.

Observe the summary of product characteristics of proprietary Notes to physician

medicinal products

Symptomatic treatment (decontamination, vital functions).

#### **SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment.

Water

Dry chemical

Foam

Carbon dioxide (CO2)

Specific hazards during fire-

fighting

In case of fire and/or explosion do not breathe fumes.

Can be released in case of fire:

Carbon oxides

Further information Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

Special protective equipment:

for firefighters

In the event of fire, wear self-contained breathing apparatus.

complete suit protecting against chemicals

#### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

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Personal precautions, protec- :

tive equipment and emergency procedures

Wear personal protective equipment.

Ensure adequate ventilation.

High risk of slipping due to leakage/spillage of product.

Environmental precautions Do not flush into surface water or sanitary sewer system.

Methods and materials for containment and cleaning up

Pick up and transfer to properly labelled containers.

### **SECTION 7. HANDLING AND STORAGE**

fire and explosion

Advice on protection against : Vapours may form explosive mixture with air.

Advice on safe handling Provide sufficient air exchange and/or exhaust in work rooms.

Conditions for safe storage Protect from heat and direct sunlight.

Materials to avoid Keep away from food, drink and animal feedingstuffs.

Observe joint storage prohibition.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	Basis	Category	Values	Remark
Ciclesonide 126544-47-6	BIEL	3B	6 µg/m3	
	BIPC	3		

### Abbreviations:

BIEL = Boehringer Ingelheim Exposure Limit (internal value)

BI-STEL = Boehringer Ingelheim Short-Term Exposure Limit (Excursion limit)

BIPC = Boehringer Ingelheim Pregnancy Category

BIPC 3: There is evidence in animals and/or humans or the mechanism of actions indicates that the compound has the potential to cause harm to the unborn. Harm to the unborn can occur even if exposure does not exceed the BIEL value.

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethanol	64-17-5	STEL	1,000 ppm	ACGIH
		TWA	1,000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z-1

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TWA 1,000 ppm OSHA P0 1,900 mg/m3

Engineering measures : Local exhaust

Emergency sprinkling nozzle

Personal protective equipment

Respiratory protection : Use NIOSH approved respiratory protection.

Hand protection

Material : Nitrile rubber Glove thickness : 0.43 mm

Directive : Protective gloves against chemicals and micro-organisms

Protective index : Class 6

Remarks : The break through time depends amongst other things on the

material, the thickness and the type of glove and therefore

has to be measured for each case.

Eye protection : Safety glasses with side-shields.

Skin and body protection : Laboratory: laboratory coat; factory: disposable Overall.

Protective measures : Handle in accordance with good industrial hygiene and safety

practice.

Avoid contact with skin, eyes and clothing.

Only use protective equipment in accordance with national/international regulations. Follow the national regulations about wearing personal protective equipment and the warran-

ty given by the manufacturer for the safe function.

Hygiene measures : General industrial hygiene practice.

Wash hands and face before breaks and immediately after

handling the product.

Keep working clothes separately.

#### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid

Colour : colourless

Odour : alcohol-like

Odour Threshold : No data available

pH : ca. 4.4

Melting point/range : No data available

Boiling point/boiling range : ca. 172 °F / 78 °C

(related to the solvent(s))

Flash point :  $54 \,^{\circ}\text{F} / 12 \,^{\circ}\text{C}$ 

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(related to the solvent(s))

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Self-ignition : No data available

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower

flammability limit

No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Bulk density : Not applicable

Solubility(ies)

Water solubility : soluble (68 °F / 20 °C)

Partition coefficient: n-

octanol/water

No data available

Auto-ignition temperature : 797 °F / 425 °C

(related to the solvent(s))

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : No data available

Explosive properties : No data available

Oxidizing properties : No data available

### **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous reac-

tions

No dangerous reaction known under conditions of normal use.

Conditions to avoid : Extremes of temperature and direct sunlight.

Incompatible materials : No data available

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Hazardous decomposition

products

No data available

#### **SECTION 11. TOXICOLOGICAL INFORMATION**

#### **Acute toxicity**

Not classified based on available information.

**Product:** 

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg

Method: Calculation method

**Components:** 

Ethanol:

Acute oral toxicity : LD50 (Rat): 10,470 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 116.9 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Method: OECD Test Guideline 403

Acute dermal toxicity : Remarks: No data available

Ciclesonide:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

LD50 (Mouse): > 2,000 mg/kg

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Assessment: Toxic effects cannot be excluded

Skin corrosion/irritation

Not classified based on available information.

Components:

Ethanol:

Remarks : No data available

Ciclesonide:

Remarks : No data available

Serious eye damage/eye irritation

Causes serious eye irritation.

**Components:** 

Ethanol:

Result : irritating

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Ciclesonide:

Remarks : No data available

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

Ethanol:

Remarks : No data available

Ciclesonide:

Test Type : Guinea pig maximization test

Species : Guinea pig

Result : No alert for skin sensitization

Germ cell mutagenicity

Not classified based on available information.

**Components:** 

Ethanol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: Bacterial reverse mutation assay

Test system: Escherichia coli

Metabolic activation: without metabolic activation

Result: positive negative

Test Type: Cytogenetic assay
Test system: mouse lymphoma cells

Metabolic activation: without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Test Type: Chromosomal aberration test
Test system: Chinese hamster ovary cells
Metabolic activation: without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test

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Species: Mouse

Method: OECD Test Guideline 475

Result: negative

Test Type: Chromosome aberration test in vitro

Species: Hamster

Method: OECD Test Guideline 475

Result: negative

Test Type: Dominant lethal assay

Species: Mouse

Method: OECD Test Guideline 478

Result: positive, negative

Ciclesonide:

Genotoxicity in vitro : Test Type: Ames test

Result: negative

Test Type: HGPRT assay

Result: negative

Test Type: Chromosomal aberration test

Test system: Human lymphocytes

Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test

Species: Chinese hamster

Result: negative

Carcinogenicity

May cause cancer.

**Components:** 

Ethanol:

Remarks : Not classified due to data which are conclusive although insuf-

ficient for classification.

Ciclesonide:

Species : Rat

Application Route : by inhalation

Remarks : Did not show carcinogenic effects in animal experiments.

IARC Group 1: Carcinogenic to humans

Ethanol 64-17-5

**OSHA** No component of this product present at levels greater than or equal to 0.1% is

on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or equal to 0.1% is

identified as a known or anticipated carcinogen by NTP.

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### Reproductive toxicity

Suspected of damaging the unborn child.

### **Components:**

Ethanol:

Effects on fertility : Remarks: Not classified due to data which are conclusive

although insufficient for classification.

Effects on foetal develop-

ment

Remarks: Not classified due to data which are conclusive

although insufficient for classification.

Ciclesonide:

Effects on fertility : Remarks: No data available

Reproductive toxicity - As-

sessment

Suspected of damaging the unborn child.

Some evidence of adverse effects on development, based on

animal experiments.

### STOT - single exposure

Not classified based on available information.

### Components:

Ethanol:

Remarks : No data available

### STOT - repeated exposure

Not classified based on available information.

#### Components:

Ethanol:

Remarks : No data available

### Repeated dose toxicity

### **Components:**

Ciclesonide:

Species : Dog
NOAEL : 47 μg/kg
Application Route : inhalation
Exposure time : 52 weeks

Species : Rat, male NOAEL : 44,5 µg/kg Application Route : inhalation Exposure time : 26 weeks

Species: Rat, femaleNOAEL: 49,6 μg/kgApplication Route: inhalationExposure time: 26 weeks

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### **Aspiration toxicity**

Not classified based on available information.

### **Components:**

#### Ethanol:

No data available

#### Ciclesonide:

No data available

### **SECTION 12. ECOLOGICAL INFORMATION**

### **Ecotoxicity**

### **Components:**

Ethanol:

Toxicity to fish : LC50 (Onchorhynchus mykiss): 11,200 mg/l

aquatic invertebrates

Toxicity to daphnia and other : LC50 (Daphnia (water flea)): 12,340 mg/l

Toxicity to algae : EC50 (Chlorella vulgaris): 275 mg/l

EC50 (Lemna gibba (gibbous duckweed)): 4,432 mg/l

EC50 (Selenastrum capricornutum): 440 mg/l

NOEC (Lemna gibba (gibbous duckweed)): 280 mg/l

Toxicity to fish (Chronic tox-

icity)

NOEC (fish): 0.04 mg/l

Exposure time: 30 d

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

EC50 ('Ceriodaphnia dubia'): 1,806 mg/l

Exposure time: 10 d

Test Type: semi-static test

NOEC ('Ceriodaphnia dubia'): 9.6 mg/l

Exposure time: 10 d Test Type: semi-static test

Toxicity to microorganisms EC50 (protozoa): 5,800 mg/l

Exposure time: 4 h

EC5 (protozoa): 65 mg/l Exposure time: 72 h

Method: Test on inhibition of cell reproduction, B+K

Ciclesonide:

Toxicity to fish Remarks: No data available

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Toxicity to daphnia and other :

aquatic invertebrates

Remarks: No data available

Toxicity to algae Remarks: No data available

Toxicity to fish (Chronic tox-

icity)

Remarks: No data available

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

Remarks: No data available

Toxicity to microorganisms Remarks: No data available

**Ecotoxicology Assessment** 

Toxic effects cannot be excluded Acute aquatic toxicity

Toxic effects cannot be excluded Chronic aquatic toxicity

Persistence and degradability

**Components:** 

Ethanol:

Biodegradability Result: Readily biodegradable.

> Biodegradation: 97 % Exposure time: 28 d

Method: OECD Test Guideline 301E

Ciclesonide:

Biodegradability Result: No data available

Bioaccumulative potential

**Components:** 

Ethanol:

Bioaccumulation Bioconcentration factor (BCF): 3.2

Remarks: No bioaccumulation is to be expected (log

P(o/w) < 1).

Partition coefficient: n-

octanol/water

log Pow: -0.35

Ciclesonide:

Remarks: No data available Bioaccumulation

Partition coefficient: n-

octanol/water

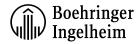
Remarks: No data available

Mobility in soil

**Components:** 

Ethanol:

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Distribution among environmental compartments Remarks: No data available

Ciclesonide:

Distribution among environmental compartments Remarks: No data available

Other adverse effects

**Product:** 

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Pro-

tection of Stratospheric Ozone - CAA Section 602 Class I

Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Components:

Ciclesonide:

Additional ecological infor-

mation

No data available

**SECTION 13. DISPOSAL CONSIDERATIONS** 

**Disposal methods** 

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packaging : Packs that cannot be cleaned should be disposed of in the

same manner as the contents.

Uncontaminated packaging can be recycled.

**SECTION 14. TRANSPORT INFORMATION** 

International Regulations

**IATA-DGR** 

UN/ID No. : UN 1170

Proper shipping name : Ethyl alcohol solution

Class : 3 Packing group : II

Labels : Flammable Liquids

Packing instruction (cargo :

aircraft)

Packing instruction (passen- : 353

ger aircraft)

IMDG-Code

UN number : UN 1170

Proper shipping name : ETHYL ALCOHOL SOLUTION

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Class : 3
Packing group : II
Labels : 3
EmS Code : F-E, S-D
Marine pollutant : no

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

Not applicable for product as supplied.

#### **National Regulations**

**49 CFR** 

UN/ID/NA number : UN 1170

Proper shipping name : Ethyl alcohol solutions

Class : 3 Packing group : II

Labels : FLAMMABLE LIQUID

ERG Code : 127 Marine pollutant : no

#### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

#### **SECTION 15. REGULATORY INFORMATION**

### **EPCRA - Emergency Planning and Community Right-to-Know Act**

### **CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ	Calculated product RQ	
·		(lbs)	(lbs)	
hydrogen chloride	7647-01-0	5000		

### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

,		,
Components	CAS-No.	Component TPQ (lbs)
SARA 311/312 Hazards	: Flammable (gases,	aerosols, liquids, or solids)

Serious eye damage or eye irritation

Carcinogenicity
Reproductive toxicity

SARA 313 : This material does not contain any chemical components with

known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

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The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

Ethanol 64-17-5 >= 70 - < 90 %

#### Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

hydrogen chloride 7647-01-0 >= 0 - < 0.1 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table

117.3:

hydrogen chloride 7647-01-0 >= 0 - < 0.1 %

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

### **US State Regulations**

Massachusetts Right To Know

Ethanol 64-17-5 hydrogen chloride 7647-01-0

Pennsylvania Right To Know

Ethanol 64-17-5
Water 7732-18-5
Ciclesonide 126544-47-6

Maine Chemicals of High Concern

Product does not contain any listed chemicals

**Vermont Chemicals of High Concern** 

Product does not contain any listed chemicals

**Washington Chemicals of High Concern** 

Product does not contain any listed chemicals

California Prop. 65

WARNING: This product can expose you to chemicals including Ethanol, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

#### **California List of Hazardous Substances**

Ethanol 64-17-5

California Permissible Exposure Limits for Chemical Contaminants

Ethanol 64-17-5

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

REACH : Not in compliance with the inventory

DSL : This product contains the following components that are not

on the Canadian DSL nor NDSL.

Ciclesonide

AICS : Not in compliance with the inventory

NZIoC : Not in compliance with the inventory

ENCS : Not in compliance with the inventory

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ISHL : Not in compliance with the inventory

KECI: Not in compliance with the inventory

PICCS : Not in compliance with the inventory

IECSC : Not in compliance with the inventory

TCSI : Not in compliance with the inventory

TSCA : Substance(s) not listed on TSCA inventory

#### **TSCA list**

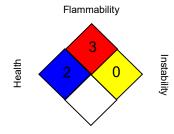
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

### **SECTION 16. OTHER INFORMATION**

### **Further information**

### NFPA 704:



Special hazard

#### HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

#### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL : USA. NIOSH Recommended Exposure Limits

OSHA P0 : USA. OSHA - TABLE Z-1 Limits for Air Contaminants -

1910.1000

OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Lim-

its for Air Contaminants

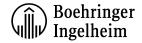
ACGIH / STEL : Short-term exposure limit

NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour

workday during a 40-hour workweek

OSHA P0 / TWA : 8-hour time weighted average OSHA Z-1 / TWA : 8-hour time weighted average

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AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ -Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB -Very Persistent and Very Bioaccumulative

Vertical lines in the left hand margin indicate an amendment from the previous version.

Sources of key data used to compile the Safety Data

The specifications are based on own tests and/or literature

data.

Sheet

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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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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