Dräger

Printed 11.01.2018

revision 24.05.2016 (GB) Version 2.3 **Drägersorb 800 Plus** 

000090300001 EU EN

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

#### 1.1. Product identifier

Name of product Drägersorb 800 Plus

Prod-Nr MX00001 (5L): MX00004 (1.2L): MX50004 (1.2L)

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

#### Identified uses

#### Sector of uses [SU]

SU20 - Health services

SU0-2 - Other activity related to manufacture and services.

#### Product categories [PC]

Adsorbent or absorbent

#### Process categories [PROC]

PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-

dedicated facilities

Professional:

PROC0 - Other Process or activity:

#### Article categories [AC]

AC2 - Machinery, mechanical appliances, electrical/electronic articles

#### Article categories [AC]

not applicable

#### Environmental release categories [ERC]

ERC11a - Wide dispersive indoor use of long-life articles and materials with low release

### Remark

no

#### Uses advised against

## Sector of uses [SU]

not determined

## Product categories [PC]

not determined

#### Process categories [PROC]

not determined

## Article categories [AC]

not applicable

#### Article categories [AC]

not applicable

#### Remark

Do not use for private purposes (household).

### Recommended intended purpose(s)

As an absorbent for carbon dioxide

#### Effect of the substance / the mixture

Adsorbs carbon dioxide from the air

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1.3. Details of the supplier of the safety data sheet

Distributor Drägerwerk AG & Co. KGaA

Moislinger Allee 53-55, D-23542 Lübeck Postbox Lübeck, D-23542 Lübeck

Phone +49 (0) 451 / 882 0, Fax +49 (0) 451 / 882 2080

E-Mail info@draeger.com Internet www: draeger.com

Advice Dräger Umweltmanagement

Phone +49 (0) 451 / 882 3125 Fax +49 (0) 451 / 882 73125 E-mail (competent person): sds@draeger.com

1.4. Emergency telephone number

Emergency advice Giftinformationszentrum Nord, Göttingen; Tel. (0551) 1 92 40

Phone +49 (0) 451 / 882 2395 (Dräger Werkschutz)

Manufacturer Drägerwerk AG & Co. KGaA

Moislinger Allee 53-55, D-23542 Lübeck Postbox Lübeck, D-23542 Lübeck

Phone +49 (0) 451 / 882 0, Fax +49 (0) 451 / 882 2080

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Phone +49 (0) 451 / 882 2395 (Dräger Werkschutz)

#### SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard classes and Hazard

Hazard Statements Classification procedure

categories

On basis of test data.

 Skin Irrit. 2
 H315

 Eye Dam. 1
 H318

Hazard statements for health hazards
H315 Causes skin irritation.
H318 Causes serious eye damage.

Additional hints

This mixture is classified as hazardous according to Regulation (EC) No 1272/2008 [GHS].

2.2. Label elements

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#### Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]



GHS05

Signal word

Danger

Hazard statements for health hazards

H315 Causes skin irritation.

H318 Causes serious eye damage.

**Precautionary Statements** 

General

P102 Keep out of reach of children. P103 Read label before use.

Prevention

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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

Response

P301 + P330 + IF SWALLOWED: rinse mouth, Do NOT induce vomiting.

P331

P302 + P352 IF ON SKIN: Wash with plenty of water/....

P305 + P351 + IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

P338 present and easy to do. Continue rinsing.

Storage

P410 Protect from sunlight.

P411 Keep at temperatures not exceeding 50 ° C.

Disposal

not determined

Hazardous ingredients for labeling

calcium dihydroxide, sodium-hydroxide

Supplemental Hazard information (EU)

Physical properties

not determined

Health properties

Repeated exposure may cause skin dryness or cracking.

**Environmental properties** 

not determined

Special rules for supplemental label elements for certain mixtures

not determined

Additional information

Special rules on packaging

not determined

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Special rules for labelling of plant protection products

not applicable

Remark

2.3. Other hazards

Adverse physicochemical effects

not determined

Adverse human health effects and symptoms

Due to its pH-value (see chapter 9), irritation of the skin and eyes cannot be ruled out.

Inhalation of dust may cause irritation of the respiratory system.

Adverse environmental effects

not determined

Other adverse effects

not determined

Information pertaining to special dangers for human and environment

not determined

Results of PBT and vPvB assessment

not determined

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

## 3.1. Substances

not applicable

#### 3.2. Mixtures

Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/ GHS]
2390-59-2	219-231-5	Ethyl violet	< 0,1	STOT SE 3, R335 / Skin Irrt. 2; H315 / Eye Dam. 1, H318
7732-18-5	231-791-2	Water	14 - 18	•
1310-73-2	215-185-5	sodium-hydroxide	2 - 4	Skin Corr. 1A, H314 / Metal Corr. 1, H290
1305-62-0	215-137-3	Calcium hydroxide	78 - 84	Skin Irrt., 2, H315 / Eye Dam., 1, H318 / STOT SE 3, H335

## REACH

CAS No	Name	REACH registration number
2390-59-2	Ethyl violet	-
7732-18-5	Water	-
1305-62-0	Calcium hydroxide	01-2119475151-45-033

#### Additional advice

nc

Labelling for contents according to regulation (EC) No 648/2004, annex VII not applicable

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

#### 4.1. Description of first aid measures

#### General information

Remove contaminated soaked clothing immediately.

#### In case of inhalation

Remove the casualty into fresh air and keep him immobile.

In the event of symptoms refer for medical treatment.

#### In case of skin contact

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

Consult a doctor if skin irritation persists.

#### In case of eve contact

In case of contact with eyes rinsing with plenty of lukewarm water carefully and seek for medical treatment.

#### In case of ingestion

Do not induce vomiting.

Give plenty of water to drink in small sips.

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

#### Physician's information / possible symptoms

not determined

#### Physician's information / possible dangers

Risk of stomach perforation

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

#### Treatment (Advice to doctor)

not determined

#### **SECTION 5: Firefighting measures**

## 5.1. Extinguishing media

#### Suitable extinguishing media

Product does not burn, fire-extinguishing activities according to surrounding.

#### Unsuitable extinguishing media

carbon dioxide

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

not determined

#### 5.3. Advice for firefighters

#### Special protective equipment for fire-fighters

no

#### Additional information

Collect contaminated firefighting water separately, must not be discharged into the drains.

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

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

#### For non-emergency personnel

Avoid dust formation.

Use personal protective clothing.

Use breathing apparatus if exposed to vapours/dust/aerosol.

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#### 6.2. Environmental precautions

Collect contaminated water / firefighting water separately.

Do not discharge into the drains/surface waters/groundwater.

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

Avoid dust formation.

Flush away residues with water.

Take up mechanically and send for disposal.

#### Additional Information

Informations for disposal see chapter 13.

#### 6.4. Reference to other sections

No information available.

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

## 7.1. Precautions for safe handling

#### Advice on safe handling

While filling and pouring suck off filling place.

Avoid the formation and deposition of dust.

No special measures necessary if used correctly.

Use only alkali-resistant equipment.

Do not return residues to the storage containers.

Take the usual precautions when handling with chemicals.

#### General protective measures

Avoid contact with eyes and skin

Do not inhale dust.

#### Hygiene measures

At work do not eat, drink and smoke.

Remove soiled or soaked clothing immediately.

Wash hands and skin before breaks and after work.

#### Advice on protection against fire and explosion

The product is not combustible.

No special measures necessary.

Pay attention to general rules of internal fire prevention.

Avoid formation of dust.

## 7.2. Conditions for safe storage, including any incompatibilities Requirements for storage rooms and vessels

Keep in closed original container.

## Advice on storage compatibility

Keep only in original container at cool and aired place at a distance of acids.

Do not store with acids.

#### Further information on storage conditions

Keep container tightly closed and store at cool and aired place.

Keep barrel tightly closed.

Storage temperature may not exceed 50°C (=122°F).

Store at 5 to 40°C (=41 to 104°F).

Close container again moistureproof after taking sample.

#### Information on storage stability

Limited stability, look up product instructions.



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Storage group 13

7.3. Specific end use(s)

Recommendation(s) for intended use

not determined

Particular industry solution(s) for intended use

not determined

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

#### 8.1. Control parameters

Ingredients with occupational exposure limits to be monitored

CAS No	Name	Code	[mg/m3]	[ppm]	Remark
1310-73-2	sodium-hydroxide	MAK, 8 hours	2	-	GB
		Short-term	2	-	
1305-62-0	Calcium hydroxide	8 hours	5	-	EU
		Short-term	-	-	
1305-62-0	Calcium hydroxide	8 hours	5	-	GB
		Short-term	-	-	

#### Additional advice

Methods for measurement of the workplace atmosphere must correspond to the requirements of DIN EN 482 and DIN EN 689.

Technical measures and appropriate working operations have priority over the use of personal protective equipment.

Protective clothing should be selected specifically for the working place, depending on concentration and quantity. The resistance of the protective equipment should be inquired at the respective supplier.

Change contaminated clothing.

Protect skin.

After work, wash hands and face.

## 8.2. Exposure controls

#### Respiratory protection

Particle-filtering half mask, filter P2

In case of dust formation wear micro dust mask.

The operator has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the manufacturer and documented accordingly.

#### Hand protection

Gloves (alkali-resistant)

Full contact: Glove material: nitrile rubber, glove thickness: 0.11 mm, Breakthrough time:> 480 min

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the resultant standard EN374.

This recommendation applies only to the product stated in the safety that comes from us and the purpose specified by us.

When dissolving in or mixing with other substances and under different conditions of the EN 374, you need to contact the supplier of CE-approved gloves (eg KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de)

## Eye protection

Do not wear contact lenses.

tightly fitting goggles

#### Other protection measures

Light protective clothing.

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Limitation and surveillance of the environment

Not be released into drains.

Appropriate engineering controls

not determined

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

9.1. Information on basic physical and chemical properties

Appearance Colour Odour solid white odourless

Odour threshold

Vapourisation rate

Upper explosion limit

not determined

Important health, safety and environmental information

Value

not determined

pH value ca. 12 suspension in water

Temperature

at

Method

Remark

Acid number not determined

not determined not determined

not determined not determined

Flash point not applicable

Flammable (solid) not applicable

Flammability (gas) not applicable

Ignition temperature not determined

Self ignition temperature not determined

Lower explosion limit not applicable

Vapour pressure not determined

Relative density not determined

Bulk density ca. 730 - 930

kg/m3

not applicable

Vapour density not applicable

Solubility in water ca. 1 g/l

Solubility/other not determined

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> Value at Method Remark Temperature Partition coefficient nnot applicable octanol/water (log P O/W) Decomposition not determined temperature not determined Viscosity not applicable Solvent separation test not applicable not applicable Solvent content Water content ca. 14 - 18 % Solids content not applicable not applicable Combustion value Oxidising properties **Explosive properties** 9.2. Other information

#### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

not determined

## 10.2. Chemical stability

not determined

#### 10.3. Possibility of hazardous reactions

not determined

#### 10.4. Conditions to avoid

Reactions with acids.

Strong exothermic reaction with acids.

Reactions with light metals in the presence of moisture, with evolution of hydrogen.

Reactions with base metals, with evolution of hydrogen.

In aqueous solution, evolves hydrogen with metals.

Evolution of heat under influence of acids.

Reactions with aluminium at high temperature.

#### 10.5. Incompatible materials

Substances to avoid

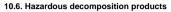
Reactions with light metals, with evolution of hydrogen.

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not determined

Thermal decomposition

Method not determined

Remark not determined

Additional information

no

## **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

#### Acute toxicity/Irritation/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	not determined	not determined	not determined	no
LD50 acute dermal	not determined	not determined	not determined	no
LC50 acute inhalation	not determined	not determined	not determined	no
Skin irritation	non-irritant	rabbit	OECD 404	no
Eye irritation	risk of strong eye injuries	rabbit eye	OECD 405	no
Skin sensitization	not determined	not determined	not determined	no
Sensitization respiratory system	not determined	not determined	not determined	no

## Subacute Toxicity - Carcinogenicity

	Value	Species	Method	Validation
Subacute Toxicity	not determined	not determined	not determined	no
Subchronic Toxicity	not determined	not determined	not determined	no
Chronic Toxicity	not determined	not determined	not determined	no
Mutagenicity	not determined	not determined	not determined	no
Reproduction- Toxicity	not determined	not determined	not determined	no
Carcinogenicity	not determined	not determined	not determined	no

**Toxicity test (Additional information)** 

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nο

nο

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#### Experiences made from practice

In an intended use will not occur dusts that may cause irritation of the mucous membranes of the respiratory tract.

#### Additional information

nο

## **SECTION 12: Ecological information**

#### 12.1. Toxicity

Ecotoxicological effects
1/ 1

	Value	Species	Method	Validation	
Fish	not determined	not determined	not determined	no	
Daphnia	not determined	not determined	not determined	no	
Algae	not determined	not determined	not determined	no	
Bacteria	not determined	not determined	not determined	no	
12.2. Persister	nce and degradability Elimination rate	Method of analysis	Method	Validation	
	Liiiiiiiatioii iate	Method of analysis	WetHod	validation	
Physico-chem degradability	ical not determined	not determined	not determined	no	

Bio	logical
dea	radability

not determined not determined

not determined

Degradability not determined not determined not determined Biological not determined not determined not determined eliminability

Degradability not applicable not determined not determined no according to WRMG

#### 12.3. Bioaccumulative potential

Because of its consistency the product cannot be dispersed in the environment. Adverse ecological effects are therefore unlikely on the basis of current knowledge.

The product has not been tested. Because of the product's consistency and low solubility in water bioavailability is not likely.

#### 12.4. Mobility in soil

not determined

### 12.5. Results of PBT and vPvB assessment

not determined

#### 12.6. Other adverse effects

not determined

## Behaviour in sewage plant

not determined

#### Respiration inhibition of activated sluge

	Value	Method	Remark
EC 50	not determined	not applicable	no

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Additional ecological information

	Value	Method	Remark
ос	not determined	not determined	no
COD	not determined	not determined	no
BOD	not determined	not determined	no
AOX	not applicable		

#### Contains following heavy metals and compounds of the 76/464/EWG

not applicable

#### General regulation

Product does not cause biological oxygen loss.

Ecological dates are not available.

Do not allow uncontrolled leakage of product into the environment.

#### **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Waste code No.	Name of waste

16 03 03\* inorganic wastes containing hazardous substances

16 05 07\* discarded inorganic chemicals consisting of or containing hazardous substances

18 01 06\* chemicals consisting of or containing hazardous substances

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 2008/98/EC on hazardous waste.

#### Recommendations for the product

Remove in accordance with local official regulations.

In accordance with respective regulations of refuse tip take to household waste disposal.

There are no harmonised regulations on the disposal of chemicals in the member states of the EU. In Germany the Recycling and Waste Management Act (KrWG) stipulates recycling as a requirement.

#### Recommendations for packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken fot reuse

Barrel: return by DSD ( Dualistic System Germany )

### Recommended cleansing agent

not determined

#### General information

The packs are preferred with respect to, the local / national regulations for reuse or for recycling.

HDPE canister or PE plastic bag, rinse with water and recycle as grade plastic.

## **SECTION 14: Transport information**

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	-	-	-
14.2. UN proper shipping name	-	-	-

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	ADR/RID	IMDG	IATA-DGR
14.3. Transport hazard class(es)	-	-	-
14.4. Packing group	-	-	-
14.5. Environmental hazards	-	-	-

#### 14.6. Special precautions for user

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

not applicable

#### Land and inland navigation transport ADR/RID

No dangerous goods as defined by these transport regulations.

#### Marine transport IMDG

No dangerous goods as defined by these transport regulations.

#### Air transport ICAO/IATA-DGR

No dangerous goods as defined by these transport regulations.

#### Transport/further information

The Dräger soda lime is not hygroscopic and contains less than 4% NaOH. He is not under UN1907.

## **SECTION 15: Regulatory information**

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

#### Authorizations

not applicable

#### Application restrictions

#### Other regulations (EU)

Council Regulation (EEC) on the supervision and control of shipments of waste within into and out of the European Community.

Mixture-WGK

#### VOC standard

#### Remark

not applicable

## National regulations

#### Restriction of occupation

not determined

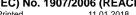
#### Other regulations, restrictions and prohibition regulations

ZH 1/124 "Plant instructions for working with hazardous substances (A 010)" ZH 1/129 "Data Sheet: Irritating substances / corrosive substances (M 004)"

Water hazard class

Technical instruction air

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Ziffer not Class I Anteil applicable Class II Ziffer not Anteil applicable Class III Ziffer not Anteil

> applicable not applicable

Decree for case of interference/

remarks

#### 15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

#### **SECTION 16: Other information**

## Training advice

not determined

#### Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 2.2

#### Sources of key data used

not determined

H290 May be corrosive to metals.

H314 Causes severe skin burns and eve damage.

H315 Causes skin irritation.

H318 Causes serious eye damage. H335 May cause respiratory irritation.

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