

**Safety Data Sheet according to Regulation
(EC) No. 1907/2006 (REACH)**

Printed 31.07.2015
revision 26.06.2015 (GB) Version 2.1

Drägersorb Free
000090300063_GB_EN

Dräger

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

1.1. Product identifier

Name of product Drägersorb Free
Prod-Nr MX50050 (5L); MX50100 (1,2L); MX50120 (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 for substances in articles without intended release

AC2 - Machinery, mechanical appliances, electrical/electronic articles

Article categories for substances in articles with intended release

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 for substances in articles without intended release

not applicable

Article categories for substances in articles with intended release

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

**Safety Data Sheet according to Regulation
(EC) No. 1907/2006 (REACH)**

Printed 31.07.2015
revision 26.06.2015 (GB) Version 2.1

Drägersorb Free
000090300063_GB_EN

Dräger

1.3. Details of the supplier of the safety data sheet

Distributor Dräger Medical UK Ltd.
The Willows, Mark Road, GB-HP2 HP2 7BW Hemel Hempstead
Hertfordshire
Phone +44 (0) 1442 21 35 42, Fax +44 (0) 1442 24 03 27
E-Mail info@draeger.com
Internet www.draeger.com

Advice Dräger Environmental Management
Phone +49 451 882 3125
Fax +49 451 882 73125
E-mail (competent person):
msds@draeger.com

1.4. Emergency telephone number

Emergency advice National Poisons Information Service, West Midlands Poisons
Unit, City Hospital NHS Trust, Dudley Ro
Phone (0) 12 15 07 55 88/9

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

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):
msds@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)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to 67/548/EEC or 1999/45/EC

Xi; R41

R-phrases

41 Risk of serious damage to eyes.

Additional hints

The preparation is classified as hazardous according Directive 1999/45/EC.
This mixture is classified as hazardous according to Regulation (EC) No 1272/2008 [GHS].

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Printed 31.07.2015
revision 26.06.2015 (GB) Version 2.1

Drägersorb Free
000090300063_GB_EN

Dräger

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

Hazard classes and Hazard categories Hazard Statements Classification procedure

Skin Irrit. 2
Eye Dam. 1

Hazard statements for health hazards

H314 Causes severe skin burns and eye damage.

Additional hints

The preparation is classified as hazardous according Directive 1999/45/EC.

2.2. Label elements

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



GHS05

Signal word

Danger

Hazard statements for health hazards

H314 Causes severe skin burns and 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 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302 + P352 IF ON SKIN: Wash with plenty of water/...
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if 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.

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Printed 31.07.2015
revision 26.06.2015 (GB) Version 2.1

Drägersorb Free
000090300063_GB_EN

Dräger

Environmental properties

not determined

Special rules for supplemental label elements for certain mixtures

not determined

Additional information

Special rules on packaging

not determined

Special rules for labelling of plant protection products

not applicable

Remark

no

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 67/548/EEC
10043-52-4	233-140-8	calcium chloride	3 - 5	Xi R36
1310-73-2	215-185-5	sodium-hydroxide	0,5 - 2	C R35
2390-59-2	219-231-5	Ethyl violet	< 0,1	Xn R22-41
7732-18-5	231-791-2	Water	14 - 18	-
1305-62-0	215-137-3	Calcium hydroxide	78 - 84	Xi R41

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
10043-52-4	233-140-8	calcium chloride	3 - 5	Eye Irrit. 2, H319
1310-73-2	215-185-5	sodium-hydroxide	0,5 - 2	Skin Corr. 1A, H314

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Printed 31.07.2015
revision 26.06.2015 (GB) Version 2.1

Drägersorb Free
000090300063_GB_EN

Hazardous ingredients (continued)

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	-
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

no

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

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 eye 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

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Printed 31.07.2015
revision 26.06.2015 (GB) Version 2.1

Drägersorb Free
000090300063_GB_EN

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.

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.

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Printed 31.07.2015
revision 26.06.2015 (GB) Version 2.1

Drägersorb Free
000090300063_GB_EN

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.

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.

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Printed 31.07.2015
revision 26.06.2015 (GB) Version 2.1

Drägersorb Free
000090300063_GB_EN

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
Splash 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.

The above breakthrough times were measured with samples of the recommended glove types of KCL in laboratory tests to 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.

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			
not determined			
Important health, safety and environmental information			
	Value	Temperature at Method Remark	
pH value	ca. 12		suspension in water
Acid number	not determined		
not determined	not determined		
not determined	not determined		
Flash point	not applicable		
Vapourisation rate	not determined		

Safety Data Sheet according to Regulation
(EC) No. 1907/2006 (REACH)

Printed 31.07.2015
revision 26.06.2015 (GB) Version 2.1

Drägersorb Free
000090300063_GB_EN

Dräger

	Value	Temperature	at	Method	Remark
Flammable (solid)	not applicable				
Flammability (gas)	not applicable				
Ignition temperature	not determined				
Self ignition temperature	not determined				
Lower explosion limit	not applicable				
Upper explosion limit	not applicable				
Vapour pressure	not determined				
Relative density	not determined				
Bulk density	ca. 730 - 930 kg/m3				
Vapour density	not applicable				
Solubility in water	ca. 1 g/l				
Solubility/other			not determined		
Partition coefficient n-octanol/water (log P O/W)	not applicable				
Decomposition temperature	not determined				
Viscosity not applicable	not determined				
Solvent separation test	not applicable				
Solvent concentration	not applicable				
Water content	ca. 14 - 18 %				
Solids content	not applicable				
Combustion value	not applicable				
Oxidising properties	no				
Explosive properties	no				
9.2. Other information	no				

Safety Data Sheet according to Regulation
(EC) No. 1907/2006 (REACH)

Printed 31.07.2015
revision 26.06.2015 (GB) Version 2.1

Drägersorb Free
000090300063_GB_EN

Dräger

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
Materials to avoid
Reactions with light metals, with evolution of hydrogen.

10.6. Hazardous decomposition products
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/Irritability/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
Irritability skin	non-irritant	rabbit	OECD 404	no
Irritability eye	risk of strong eye injuries	rabbit eye	OECD 405	no
Skin sensitization	not determined	not determined	not determined	no

Safety Data Sheet according to Regulation
(EC) No. 1907/2006 (REACH)

Printed 31.07.2015
revision 26.06.2015 (GB) Version 2.1

Drägersorb Free
000090300063_GB_EN



	Value/Validation	Species	Method	Remark
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)
no

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
no

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	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. Persistence and degradability

Physico-chemical degradability	not determined	not determined	not determined	no
Biological degradability	not determined	not determined	not determined	no
Degradability	not determined	not determined	not determined	no
Biological eliminability	not determined	not determined	not determined	no

Safety Data Sheet according to Regulation
(EC) No. 1907/2006 (REACH)

Printed 31.07.2015
revision 26.06.2015 (GB) Version 2.1

Drägersorb Free
000090300063_GB_EN



	Elimination rate	Method of analysis	Method	Validation
Degradability according to WRMG	not applicable	not determined	not determined	no

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 sludge

	Value	Method	Remark
EC 50	not determined		

Additional ecological information

	Value	Method	Remark
OC	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 dangerous substances
16 05 07*	discarded inorganic chemicals consisting of or containing dangerous substances
18 01 06*	chemicals consisting of or containing dangerous substances

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

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Printed 31.07.2015
revision 26.06.2015 (GB) Version 2.1

Drägersorb Free
000090300063_GB_EN

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 for 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	-	-	-
14.3. Transport hazard class(es)	-	-	-
14.4. Packing group	-	-	-
14.5. Environmental hazards	-	-	-
14.6. Special precautions for user	no		
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

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Printed 31.07.2015
revision 26.06.2015 (GB) Version 2.1

Drägersorb Free
000090300063_GB_EN

Application restrictions

no

Other regulations (EU)

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

VOC standard

Remark

not applicable

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.

Further information

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: 2.0

Sources of key data used

not determined

Wording of the R/H-phrases specified in chapter 3 (not the classification of the mixture!)

R 22 Harmful if swallowed.

R 35 Causes severe burns.

R 36 Irritating to eyes.

R 41 Risk of serious damage to eyes.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.