

Safety Data Sheet

Material Name: Drägersorb 800 Plus/Drägersorb Free

SDS ID: 4594540

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

Drägersorb 800 Plus/Drägersorb Free

Synonyms

Prod-Nr.: MX00001 (5L); MX00004 (1,2L); MX50004 (1,2L), MX50050 (5L); MX50100 (1,2L); MX50120 (1,2L)

Chemical Family

Adsorbent or absorbent

Product Description

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

Product Use

Health services. Other activity related to manufacture and services, carbon dioxide absorbent.

Restrictions on Use

Do not use for private purposes (household).

Details of the supplier of the safety data sheet

Drägerwerk AG & Co. KGaA
Moislinger Allee 53-55
D-23558 Lübeck
Telefon 0451/882-0
Telefax 0451/882-2080
Phone: 0451/882-0
Emergency Phone #: 1-800-424-9300 (CHEMTREC)
Fax: 0451/882-2080

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Skin Corrosion/Irritation - Category 2

Serious Eye Damage/Eye Irritation - Category 1

GHS Label Elements**Symbol(s)****Signal Word**

Danger

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Hazard Statement(s)

Causes skin irritation

Causes serious eye damage

Precautionary Statement(s)

Prevention

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

Wash thoroughly after handling

Response

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

Immediately call a POISON CENTER or doctor

IF ON SKIN: Wash with plenty of soap and water

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

Specific treatment (see label)

Storage

None needed according to classification criteria

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
1305-62-0	Calcium hydroxide	78-84
10043-52-4	Calcium chloride	0-5
1310-73-2	Sodium hydroxide	0.5-4
2390-59-2	Ethanaminium, N-[4-[bis[4-(diethylamino)phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-ethyl-, chloride	<0.1
7732-18-5	Water	14-18

Section 4 - FIRST AID MEASURES

Inhalation

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Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

Skin

Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Ingestion

Rinse mouth. Do NOT induce vomiting.

Most Important Symptoms/Effects

Acute

Causes serious eye damage. Causes skin irritation.

Delayed

No information on significant adverse effects.

Note to Physicians

May cause perforation of esophagus and stomach.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Use any media suitable for the surrounding fires.

Unsuitable Extinguishing Media

carbon dioxide

Special Hazards Arising from the Chemical

None reported.

Hazardous Combustion Products

Oxides of carbon

Fire Fighting Measures

Move container from fire area if it can be done without risk. Dike for later disposal. Do not scatter spilled material with high-pressure water streams. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Special Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

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Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Avoid generation of dust. Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Avoid generation of dust. Eliminate all sources of ignition. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop leak if safe to do so. Prevent entry into waterways, sewers, basements, or confined areas.

Environmental Precautions

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Avoid release to the environment. Collect spillage.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Avoid generation of dust. Do not return to original containers. Avoid contact with eyes, skin and clothing.

Conditions for Safe Storage, Including any Incompatibilities

None needed according to classification criteria

Keep only in original container. Store in a well-ventilated place. Keep cool. Do not store together with acids. Keep container tightly closed. Store below 50 C.

Incompatible Materials

Light metals, base metals, acids

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Calcium hydroxide Ca(OH) ₂	1305-62-0
ACGIH:	5 mg/m ³ TWA
NIOSH:	5 mg/m ³ TWA
Europe:	5 mg/m ³ TWA (existing scientific data on health effects appear to be particularly limited)
OSHA (US):	15 mg/m ³ TWA total dust; 5 mg/m ³ TWA respirable fraction

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Mexico:	5 mg/m3 TWA LMPE-PPT
Sodium hydroxide NaOH	1310-73-2
ACGIH:	2 mg/m3 Ceiling
NIOSH:	2 mg/m3 Ceiling
	10 mg/m3 IDLH
OSHA (US):	2 mg/m3 TWA
Mexico:	2 mg/m3 Ceiling

Biological limit value

There are no biological limit values for any of this product's components.

Engineering Controls

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear safety goggles with a faceshield. Do not wear contact lenses. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection

Wear appropriate chemical resistant clothing.

Respiratory Protection

A NIOSH approved respirator with a dust, mist, and fume filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits or when symptoms have been observed that are indicative of overexposure.

Glove Recommendations

Wear appropriate chemical resistant gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Not available	Physical State	Not available
Odor	Not available	Color	Not available
Odor Threshold	Not available	pH	12 (suspension in water)
Melting Point	Not available	Boiling Point	Not available
Freezing point	Not available	Evaporation Rate	Not available
Boiling Point Range	Not available	Flammability (solid, gas)	Not available
Autoignition	Not available	Flash Point	Not available

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Lower Explosive Limit	Not available	Decomposition	Not available
Upper Explosive Limit	Not available	Vapor Pressure	Not available
Vapor Density (air=1)	Not available	Specific Gravity (water=1)	Not available
Water Solubility	1 g/l	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Solubility (Other)	Not available
Bulk Density	730 - 930 kg/m ³ °C hPa	Density	Not available

Section 10 - STABILITY AND REACTIVITY

Reactivity

not determined

Chemical Stability

not determined

Possibility of Hazardous Reactions

not determined

Conditions to Avoid

Avoid contact with incompatible materials. Exothermic reaction with strong acids. The product develops hydrogen in an aqueous solution in contact with metals.

Incompatible Materials

Light metals, acids, base metals

Hazardous decomposition products

oxides of carbon

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

may cause irritation.

Skin Contact

Causes skin irritation.

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Eye Contact

Causes serious eye damage.

Ingestion

May cause gastrointestinal irritation.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Calcium hydroxide Ca(OH)_2 (1305-62-0)

Oral LD50 Rat 7340 mg/kg

Calcium chloride CaCl_2 (10043-52-4)

Oral LD50 Rat 1000 mg/kg

Dermal LD50 Rat 2630 mg/kg

Sodium hydroxide NaOH (1310-73-2)

Dermal LD50 Rabbit 1350 mg/kg

Water (7732-18-5)

Oral LD50 Rat >90 mL/kg

Immediate Effects

Causes severe skin burns and eye damage.

Delayed Effects

No information on significant adverse effects.

Irritation/Corrosivity Data

Causes skin irritation. Causes serious eye damage.

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

No information available for the product.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA

Germ Cell Mutagenicity

No information available for the product.

Tumorigenic Data

No information available for the product.

Reproductive Toxicity

No information available for the product.

Specific Target Organ Toxicity - Single Exposure

No target organs identified

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified



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Aspiration hazard

No information available for the product.

Medical Conditions Aggravated by Exposure

No data available.

Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity

Calcium chloride CaCl ₂	10043-52-4
Fish:	LC50 96 h Lepomis macrochirus 10650 mg/L [static]
Invertebrate:	LC50 48 h Daphnia magna 2400 mg/L ECHA
Sodium hydroxide NaOH	1310-73-2
Fish:	LC50 96 h Oncorhynchus mykiss 45.4 mg/L [static]

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 14 - TRANSPORT INFORMATION

US DOT Information:

UN/NA #: Not Regulated

TDG Information:

UN#: Not Regulated

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Sodium hydroxide NaOH	1310-73-2
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CERCLA:	1000 lb final RQ; 454 kg final RQ
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SARA Section 311/312 (40 CFR 370 Subparts B and C)

Acute Health: Yes Chronic Health: No Fire: No Pressure: No Reactivity: No

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Calcium hydroxide Ca(OH) ₂	1305-62-0	Yes	Yes	Yes	Yes	Yes
Sodium hydroxide NaOH	1310-73-2	Yes	Yes	Yes	Yes	Yes

Not listed under California Proposition 65

Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

Calcium hydroxide Ca(OH) ₂	1305-62-0
	1 %
Sodium hydroxide NaOH	1310-73-2
	1 %

Component Analysis - Inventory

Calcium hydroxide Ca(OH)₂ (1305-62-0)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No

Calcium chloride CaCl₂ (10043-52-4)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No

Sodium hydroxide NaOH (1310-73-2)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No

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Ethylviolet (2390-59-2)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	No	Yes	No	No	Yes	Yes	No	No

Water (7732-18-5)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes	No

Section 16 - OTHER INFORMATION

NFPA Ratings

Health: 2 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes

New SDS: 6/8/2015

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.



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Other Information

Disclaimer:

Supplier gives no warranty whatsoever, including the warranties of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser shall determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental, consequential or any other damages arising out of the use or misuse of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights.