according to 1907/2006/EC, Article 31

CORROSIVE AGENT - Ä100/Disodium peroxodisulphate

1.0



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

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- · Date of compilation: 09.03.2004
- · 1.1 Product identifier
- · Trade name: Disodium peroxodisulphate
- Article-No.: Corrosive agent Ä100
- · Synonym(s): Natriumpersulfat
- · CAS Number:
- 7775-27-1
- EC number: 231-892-1
- **Registration number:** REACH: 01-2119495975-15
- **1.2 Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.
- Application of the substance / the preparation: Chemicals for various applications Oxidizing agent

# $\cdot$ 1.3 Details of the supplier of the safety data sheet

Firma	:	Kemo-Electronic GmbH Leher Landstraße 20 27607 Langen
Telefon	:	+49 (0)4743 9338-0
Telefax	:	+49 (0)4743 9338-22
Email-Adresse	:	kemo-electronic@t-online.de
Verantwortliche/ausstellen-	:	Umwelt / Sicherheit
de Person		

#### **1.4 Emergency telephone number:**

Next toxicological information centre or for Germany: Beratungsstelle für Vergiftungserscheinungen Mainz (Poison Information Center) Phone: +49 6131 / 19 24 0

# **SECTION 2: Hazards identification**

### 2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008



GHS03 flame over circle

Ox. Sol. 2 H272 May intensify fire; oxidiser.

according to 1907/2006/EC, Article 31

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ССССС	08 health hazard		
Resp. Sens. 1	H334 May cause allergy or asthn	na symptoms or breathing difficulties if inhale	d.
GHS	07		

Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

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

Xn; Harmful

R22: Harmful if swallowed.

Xn; Sensitising

R42/43: May cause sensitisation by inhalation and skin contact.



R36/37/38: Irritating to eyes, respiratory system and skin.

0; Oxidising

R8: Contact with combustible material may cause fire.

· 2.2 Label elements

## Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS07

# · Signal word Danger

- · Hazard statements
- H272 May intensify fire; oxidiser.
- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H317 May cause an allergic skin reaction.
- H335 May cause respiratory irritation.

## · Precautionary statements

- P221 Take any precaution to avoid mixing with combustibles.
- P285 In case of inadequate ventilation wear respiratory protection.
- P220 Keep/Store away from clothing/combustible materials.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- Avoid breathing dust. P261
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.



according to 1907/2006/EC, Article 31

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P312	Call a POISON CENTER or doctor/physician if you feel unwell.		

P312	Call a POISON CENTER of doctor/physician if you leef unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.

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

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

· Additional information:

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

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

- · 3.1 Chemical characterization: Substances
- · CAS No. Designation:
- 7775-27-1 Disodium peroxodisulphate
- · Identification number(s):
- · EC number: 231-892-1

# \* SECTION 4: First aid measures

### · 4.1 Description of first aid measures

#### · General information:

Immediately remove any clothing contaminated by the product. Take affected persons out of danger area and instruct to lie down.

Do not leave affected persons unsupervised.

Personal protection for the person providing first aid.

• After inhalation:

Supply fresh air and call for doctor for safety reasons. Do not use mouth to mouth or mouth to nose resuscitation. Use a respiration bag or breathing device.

In case of unconsciousness bring patient into stable side position for transport.

· After skin contact:

Instantly wash with water and soap and rinse thoroughly.

- Consult doctor in case of symptoms.
- · After eye contact:

Rinse opened eye for several minutes under running water. Then consult doctor. Remove contact lenses, if present and easy to do.

· After swallowing:

Rinse out mouth and then drink plenty of water. Do not induce vomiting!

Instantly call for doctor.

- 4.2 Most important symptoms and effects, both acute and delayed Allergic reactions
- · 4.3 Indication of any immediate medical attention and special treatment needed Medical supervision for at least 48 hours.

# **SECTION 5: Firefighting measures**

- · 5.1 Extinguishing media
- $\cdot$  Suitable extinguishing agents
- Water haze
- Water spray jet
- $\cdot$  For safety reasons unsuitable extinguishing agents
- $\cdot$  5.2 Special hazards arising from the substance or mixture

Oxidising by development of oxygen Danger of bursting Can be released in case of fire: according to 1907/2006/EC, Article 31

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Irritant gases/vapours Sulphur dioxide (SO2) Danger of toxic pyrolysis products

Under certain fire conditions, traces of other toxic gases cannot be excluded.

- · 5.3 Advice for firefighters
- · Protective equipmentWear self-contained breathing apparatus.

### · Additional information

Cool endangered containers with water spray jet.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations. If without risk possible, move drums with material away from dangerous area.

# \* SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
 Ensure adequate ventilation.
 Avoid causing dust.
 Do not breathe dust.
 Use breathing protection against the effects of fumes/dust/aerosol.
 Avoid contact with skin and eyes.
 Remove all ignition sources.
 Wear protective equipment. Keep unprotected persons away.
 6.2 Environmental precautions:
 Damp down dust with water spray jet.
 Do not allow to enter drainage system, surface or ground water.

Inform respective authorities in case of a large amount of product reaches water or sewage system.

## • 6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Collect mechanically.

Clean up affected area.

Send for recovery or disposal in suitable containers.

Dispose of the material collected according to regulations.

• 6.4 Reference to other sections See Section 8 for information on personal protection equipment.

# **SECTION 7: Handling and storage**

## · 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of dust.

Any deposit of dust which cannot be avoided must be removed regularly.

Do not breathe dust.

Make sure that all applicable workplace limits are observed.

Avoid contact with skin and eyes.

Do not replace residual quantities in storage containers.

## ATTENTION:

Contaminated organic solids (like textiles/paper) may ignite without an external source of ignition (self ignition). Wash contaminated material at once with plenty of water.

## $\cdot$ Information about protection against explosions and fires:

Substance/product is oxidizing when dry. Substance/product can reduce the ignition temperature of flammable substances. Potentially explosive when mixed with organic substances. Keep ignition sources away - Do not smoke. Protect against electrostatic charges. Protect from heat and direct sunlight.

according to 1907/2006/EC, Article 31

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Keep breathing equipment ready.

#### $\cdot$ 7.2 Conditions for safe storage, including any incompatibilities

- · Storage
- $\cdot$  Requirements to be met by storerooms and containers:
- Observe all local and national regulations for storage of water polluting products.
- $\cdot$  Information about storage in one common storage facility:
- Store away from flammable substances.

Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.

- Further information about storage conditions: Store container in a well ventilated position.
   Store in cool, dry conditions in well sealed containers.
   Protect from humidity and keep away from water.
   This product is hygroscopic.
   Protect from contamination.
- 7.3 Specific end use(s) of further relevant information available.

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

#### · Additional information about design of technical systems:

#### · 8.1 Control parameters

- · Components with critical values that require monitoring at the workplace: Observe all workplace limits for dust.
- · DNELs no data available
- $\cdot \ \textbf{PNECs}$  no data available
- · Additional information: The lists that were valid during the compilation were used as basis.

#### · 8.2 Exposure controls

- · Personal protective equipment
- · General protective and hygienic measures

Keep away from foodstuffs, beverages and food.

Instantly remove any contaminated garments.

Do not eat, drink or smoke while working.

Do not carry cleaning cloths impregnated with the product in trouser pockets.

Avoid contact with the eyes and skin.

Do not breathe dust.

Wash hands during breaks and at the end of the work.

Use skin protection cream for preventive skin protection.

· Breathing equipment:

Use breathing protection in case of dust formation.

If all workplace limits are observed and good ventilation is ensured, no special precautions necessary.

#### · Recommended filter device for short term use:

Partikelfilter EN 143 Type P2 Combination filter ABEK-P2

• Protection of hands:

Impervious gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Check the permeability prior to each renewed use of the glove.

To avoid skin problems reduce the wearing of gloves to the required minimum.

Material of gloves

Butyl rubber - BR

Recommended thickness of the material:0.5 mm

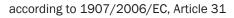
Poly vinyl chloride - PVC

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies frommanufacturer to manufacturer.

# Penetration time of glove material

Penetration time:  $\geq$  8 hours Protective gloves should be replaced at first signs of wear.





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• Eye protection: Tightly sealed safety glasses

#### · Body protection:

Protective work clothing

Body protection must be chosen depending on activity and possible exposure.

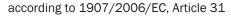
# **SECTION 9: Physical and chemical properties**

$\cdot$ 9.1 Information on basic physical and chemical properties $\cdot$ General Information		
· Appearance:		
Form:	solid	
Colour:	white	
· Smell:	odourless	
· Odour threshold:	not applicable	
· pH-value (250 g/l) at 25 °C:	~4.3	
· Change in condition		
Melting point/Melting range:	Decomposes before melting.	
Boiling point/Boiling range:	not applicable	
· Flash point:	not applicable	
· Inflammability (solid, gaseous)	Contact with combustible material may cause fire.	
· Ignition temperature:		
Decomposition temperature:	~180 °C (SADT (UN-Test H.4))	
· Self-inflammability:	Product is not selfigniting.	
· Danger of explosion:	Explosive when mixed with combustible material.	
<ul> <li>Critical values for explosion: Oxidizing properties</li> </ul>	oxidising	
· Vapor pressure:	no data available	
· Density at 20 °C:	1.20 ~ 2.59 g/cm <sup>3</sup>	
· Bulk density:	1150 ~ 1350 kg/m³	
Relative density	no data available	
$\cdot$ Vapour density (AIR = 1):	not applicable	
· Evaporation rate	not applicable	
$\cdot$ Solubility in / Miscibility with		
Water at 20 °C:	545 ~ 556 g/l	
<ul> <li>Organic solvents:</li> </ul>	not determined	
· Partition coefficient (n-octanol/wat	er): Not bioaccumulative	
· Viscosity:		
dynamic:	Not applicable.	
kinematic:	Not applicable.	
<ul> <li>9.2 Other information</li> </ul>	No further relevant information available.	

# \* SECTION 10: Stability and reactivity

#### · 10.1 Reactivity

- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: To avoid thermal decomposition do not overheat. Sources of ignition



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Take precautionary measures against static discharge. Protect from moisture. Decomposition will begin at: ~180 °C (SADT) · 10.3 Possibility of hazardous reactions Danger of bursting Reacts with flammable substances Acts as an oxidizing agent on organic materials such as wood, paper and fats. Reacts with fabric soaked in the product (e.g. cleaning wool) Reacts with fats and oils Reacts with reducing agents Reacts with acids Reacts with alkali (lves) • 10.4 Conditions to avoid No further relevant information available. • 10.5 Incompatible materials: Strong acids Alkaline materials Reducing agents Flammable materials Heavy metal compounds · 10.6 Hazardous decomposition products: Irritant gases/vapours

Sulphur oxides (SOx) Oxygen Danger of toxic pyrolysis products

# **SECTION 11: Toxicological information**

## $\cdot$ 11.1 Information on toxicological effects

# · Acute toxicity:

#### · LD/LC50 values that are relevant for classification:

•		
Oral	LD50	920 mg/kg (rat) (IUCLID)
Dermal	LD50	> 10000 mg/kg (rabbit)
Inhalative	LC0/4 h	> 5.1 mg/l (rat)

· Primary irritant effect:

- on the skin: Irritant for skin and mucous membranes.
- on the eye: Causes serious eye irritation.
- · Other information (about experimental toxicology): Ames test: negative
- Experience with humans: May cause respiratory irritation.
- $\cdot$  Sensitisation May cause sensitisation by inhalation and skin contact.
- $\cdot$  CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)

According to present knowledge no CMR-effects known.

## **SECTION 12: Ecological information**

#### · 12.1 Toxicity

#### · Aquatic toxicity:

EC50/48 h 133 mg/l (water flea (daphnia magna)) (IUCLID)

EC50/72 h 116 mg/l (bacteriums)

LC50/96 h 771 mg/l (rainbow trout (oncorhynchus mykiss)) (IUCLID)

· 12.2 Persistence and degradability Anorganic product, is not removable from water by biological cleaning process

· 12.3 Bioaccumulative potential Not bioaccumulative

• 12.4 Mobility in soil No further relevant information available.

· Additional ecological information:

· Chemical Oxygen Demand (COD-value): no data available

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- · Biochemical Oxygen Demand (BOD5-value): no data available
- · General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Water hazard class 1 (Assessment by list): slightly hazardous for water

- $\cdot$  12.5 Results of PBT and vPvB assessment
- $\cdot$  **PBT:** Not applicable.
- · vPvB: Not applicable.
- $\cdot$  12.6 Other adverse effects No further relevant information available.

## **SECTION 13: Disposal considerations**

- · 13.1 Waste treatment methods
- Recommendation Disposal must be made according to official regulations.
- Waste disposal key number: According to local/national regulations.
- European waste catalogue: Waste disposal key numbers from EWC have to be assigned depending on origin and processing.

· Uncleaned packagings:

• **Recommendation:** Disposal must be made according to official regulations.

· Recommended cleaning agent: Water

SECTION 14: Transport information		
· 14.1 UN-Number · ADR, IMDG, IATA	UN1505	
<ul> <li>14.2 UN proper shipping name</li> <li>ADR</li> <li>IMDG, IATA</li> </ul>	UN 1505 SODIUM PERSULPHATE SODIUM PERSULPHATE	
$\cdot$ 14.3 Transport hazard class(es)		
· ADR		
· Class	5.1 (02) Oxidising substances.	
· Label	5.1	
· Class · Label	5.1 Oxidising substances. 5.1	
<ul> <li>14.4 Packing group</li> <li>ADR, IMDG, IATA</li> </ul>		
· 14.5 Environmental hazards:	Not applicable.	
· Marine pollutant:	NO	
• 14.6 Special precautions for user	Warning: Oxidising substances.	
<ul> <li>Kemler Number:</li> <li>EMS Number:</li> </ul>	50 F-A,S-Q	
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• 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code not determined			
· Transport/Add	ditional information:	Transport by post may be prohibited or restricted.	
· ADR			
<ul> <li>Excepted quarter</li> </ul>	ntities (EQ):	E1	
<ul> <li>Limited quant</li> </ul>	ities (LQ):	5 kg	
· Transport cate	egory:	3	
• Tunnel restric	tion code:	E	
· UN "Model Re	gulation":	UN1505, SODIUM PERSULPHATE, 5.1, III	

# **SECTION 15: Regulatory information**

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

#### · National regulations

· Information about limitation of use:

Employment restrictions concerning pregnant and lactating women must be observed. Employment restrictions concerning young persons must be observed.

• Decree to be applied in case of technical fault: Quantity limits according to "EC Seveso directive" should be observed.

#### · Water hazard class:

Water hazard class 1 (Assessment by list): slightly hazardous for water ID-Number: 1352

· Other regulations, limitations and prohibitive regulations

- Observe restrictions on the marketing and use according to Annex XVII of Regulation (EC) No 1907/2006.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## **SECTION 16: Other information**

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

#### · Reasons for changes:

The Material Safety Data Sheet has been revised. Changes in the respective chapters are characterized in the left side edge by \*.

#### · Recommended restriction of use: Industrial use

#### · Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: International Civil Aviation Organization ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (REACH) PNEC: Predicted No-Effect Concentration (REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

 $\cdot$  Sources: These data are based on information submitted by pre-suppliers.

 $\cdot$  \* Data compared to the previous version altered.