

Safety Data Sheet

according to Regulation (EC) No 1907/2006

MAFOR PULVER

Print date: 08.04.2014

Product code: 60176

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

1.1. Product identifier

MAFOR PULVER

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

Use of the substance/mixture

Dishwasher cleaner

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Company name:	DR. SCHNELL Chemie GmbH	
Street:	Taunusstraße 19	
Place:	D-80807 München	
Telephone:	+49/89/350608-0	Telefax: +49/89/350608-47
e-mail:	info@dr-schnell.de	
Contact person:	Josef Feuerstein	Telephone: +49/89/350608-46
e-mail:	sdb@dr-schnell.de	
Internet:	www.dr-schnell.de	
Responsible Department:	Labor	

1.4. Emergency telephone number:

Emergency CONTACT (24-Hour-Number) international:
GBK GmbH +49 (0) 61 32 - 8 44 63

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Indications of danger: C - Corrosive, Xi - Irritant, N - Dangerous for the environment

R phrases:

Causes burns.

Irritating to respiratory system.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Classification according EC regulation 1272/2008 (CLP): not determined

2.2. Label elements

Danger symbols: C - Corrosive



C - Corrosive

Hazardous components which must be listed on the label

disodium metasilicate

R phrases

- | | |
|-------|---|
| 34 | Causes burns. |
| 37 | Irritating to respiratory system. |
| 52/53 | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |

S phrases

- | | |
|----|---|
| 22 | Do not breathe dust. |
| 26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| 28 | After contact with skin, wash immediately with plenty of Wasser. |

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- 35 This material and its container must be disposed of in a safe way.
 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 61 Avoid release to the environment. Refer to special instructions / Safety data sheets.
 01/02 Keep locked up and out of the reach of children.
 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

Additional advice on labelling

Labeling according to Regulation (EC) 1272/2008 (CLP): not determined

2.3. Other hazards

The components in this formulation do not meet the criteria for classification as PBT or vPvB.
 High pH value can damage water.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
229-912-9	disodium metasilicate	40-60 %
10213-79-3	C - Corrosive, Xi - Irritant R34-37	
	Skin Corr. 1B, STOT SE 3; H314 H335	
207-838-8	sodium carbonate	15-25 %
497-19-8	Xi - Irritant R36	
011-005-00-2	Eye Irrit. 2; H319	
	Alkoholalkoxylat	1-5 %
69227-21-0	Xi - Irritant R38	
	Skin Irrit. 2; H315	
220-767-7	troclosene sodium, dihydrate	0,25-<2,5 %
51580-86-0	Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R22-31-36/37-50-53	
613-030-01-7	Acute Tox. 4, Eye Irrit. 2, STOT SE 3, Aquatic Acute 1, Aquatic Chronic 1; H302 H319 H335 H400 H410	

Full text of R and H phrases: see Section 16.

Further Information

Regulation (EC) No. 648/2004 (Detergents regulation)
 > 30 % phosphates
 < 5 % chlorine-based bleaching agents, non-ionic surfactants

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Move victim out of danger zone. Provide fresh air.
 In all cases of doubt, or when symptoms persist, seek medical advice.
 To be accompanied by MSDS.

After contact with skin

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. In case of skin irritation, seek medical treatment. To be accompanied by MSDS.

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After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.
Remove contact lenses, if present and easy to do. Continue rinsing.
Consult an ophthalmologist.

After ingestion

Call a physician immediately. To be accompanied by MSDS.

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

If applicable, delayed symptoms and effects can be found in section 11. , i.e. under section 4.1 for absorption methods.

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

No special measures are necessary.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Water spray.

Unsuitable extinguishing media

Not tested

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated:

Chlorine gases

Gas/vapours, harmful.

Gas/vapours, corrosive.

Nitrogen oxides (NOx).

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Alkali-resistant protective clothing (EN 13034)

If necessary Full protective suit.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Dispose of waste according to applicable legislation.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation.

Avoid generation of dust.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Avoid contact with skin and eyes.

6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).

Do not allow to enter into surface water or drains.

Leakage into waters, ground or the drainage system, the appropriate authorities must be informed.

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

Flush residue with plenty of water. Knock down dust with water spray jet.

6.4. Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

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7.1. Precautions for safe handling**Advice on safe handling**

In addition to the information contained in this section, relevant information can also be found in sections 8 and 6.1.

Further information on handling

Local suction system on.
Observe instructions for use.
Notice the directions for use on the label.
Working methods should be applied according to operating instructions.
Provide adequate ventilation.
When using do not eat, drink or smoke.
General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and after work.
Keep away from food, drink and animal feeding stuffs.
Contaminated work clothing should not be allowed out of the workplace.

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

Store in a place accessible by authorized persons only.
Not to be stored in gangways or stair wells.
Separation regulations.
Store product closed and only in original packing.
Do not use materials not resistant to alkali.
Product contains around 1% explosive storage class II ingredients.
Protect from moisture.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****8.2. Exposure controls****Appropriate engineering controls**

Provide adequate ventilation.
This can be achieved by local exhaust ventilation or general ventilation.
When exceeding the occupational exposure limit (OEL):
Use appropriate respiratory protection.
Applies only if maximum permissible exposure values are listed here.

Protective and hygiene measures

General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and after work.
Keep away from food, drink and animal feeding stuffs.
Contaminated work clothing should not be allowed out of the workplace.

Eye/face protection

Tightly sealed safety glasses. (EN 166)

Hand protection

Protective gloves made of natural latex (EN 374), Permeation time (penetration time) in minutes: 480
Protective gloves of nitrile (EN 374), Permeation time (penetration time) in minutes: 480
Recommendation: Manufacturer: KCL GmbH, D-36124 Eichenzell, E-mail: vertrieb@kcl.de
Specification No.: 706 Lapren, 730 Camatril Velours

No tests have been carried out.

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For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments)

Respiratory protection

When exceeding the occupational exposure limit (OEL): Dust mask with fine dust filter recommended (EN 143), white

Environmental exposure controls

No information available.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state: solid, Powder
 Colour: white
 Odour: characteristic

Test method

pH-Value: ~12 (10 %)

Changes in the physical state

Melting point: not determined
 Initial boiling point and boiling range: not determined
 Flash point: not determined

Flammability

Solid: not determined
 Gas: not determined

Explosive properties

not determined

Lower explosion limits: not determined
 Upper explosion limits: not determined
 Ignition temperature: not determined

Auto-ignition temperature

Solid: not determined
 Gas: not determined

Oxidizing properties

not determined

Vapour pressure: not determined
 Vapour pressure: not determined
 Density: ~0,875 g/cm³
 Bulk density: not determined
 Water solubility: miscible.

Solubility in other solvents

not determined

Partition coefficient: not determined
 Viscosity / dynamic: not determined
 Viscosity / kinematic: not determined
 Vapour density: not determined

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Solvent content: not determined

9.2. Other information

Mixability: not determined
Fat solubility (g/l): not determined
Conductivity: not determined
Surface tension: not determined

SECTION 10: Stability and reactivity**10.1. Reactivity**

See also Subsection 10.4 to 10.6.
The product has not been tested.

10.2. Chemical stability

See also Subsection 10.4 to 10.6.

10.3. Possibility of hazardous reactions

See also Subsection 10.4 to 10.6.

10.4. Conditions to avoid

See also section 7.
Protect from moisture.

10.5. Incompatible materials

See also section 7.
Protect from moisture.
Avoid contact with other chemicals.
Avoid contact with materials that are not alkali resistant.
Possibly extensive generation of hydrogen on contact with amphoteric metals (e.g. aluminium, lead, zinc) (explosive hazard!).
Contact with strong acids leads to strong reaction and heat production

10.6. Hazardous decomposition products

See also Subsection 10.4 to 10.6.
See also section 5.2.
Contact with other products can produce dangerous chloride gases.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Toxicokinetics, metabolism and distribution**

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

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Acute toxicity

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
10213-79-3	disodium metasilicate				
	oral	LD50	- mg/kg		No data available
	dermal	LD50	- mg/kg		No data available
	inhalative vapour	LC50	- mg/l		No data available
497-19-8	sodium carbonate				
	oral	LD50	4090 mg/kg	Rat	IUCLID
51580-86-0	troclosene sodium, dihydrate				
	oral	LD50	550-1600 mg/kg	Rat	
	dermal	LD50	>5000 mg/kg	Rabbit	

SECTION 12: Ecological information

12.1. Toxicity

See section 2.1 (rating) for potentially additional information concerning environmental effects.

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h] [d]	Species	Source
10213-79-3	disodium metasilicate					
	Acute fish toxicity	LC50	210 mg/l	96 h	Brachydanio rerio (zebra-fish)	
	Acute crustacea toxicity	EC50	4857 mg/l	48 h	Daphnia magna	
497-19-8	sodium carbonate					
	Acute fish toxicity	LC50	300 mg/l	96 h	Lepomis macrochirus	
	Acute crustacea toxicity	EC50	265 mg/l	48 h	Daphnia magna	IUCLID
51580-86-0	troclosene sodium, dihydrate					
	Acute fish toxicity	LC50	0,28-0,46 mg/l	96 h	Lepomis macrochirus	
	Acute crustacea toxicity	EC50	0,18-0,21 mg/l	48 h	Daphnia magna	

12.2. Persistence and degradability

The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

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13.1. Waste treatment methods**Advice on disposal**

Dispose of waste according to applicable legislation.
E.g. dispose at suitable refuse site.
Neutralisation possible by an expert.

Waste disposal number of waste from residues/unused products

200129 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); detergents containing dangerous substances
Classified as hazardous waste.

Contaminated packaging

Dispose of waste according to applicable legislation.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number: UN3253
14.2. UN proper shipping name: Disodium Trioxosilicate - Mixture
14.3. Transport hazard class(es): 8
14.4. Packing group: III
Hazard label: 8
Classification code: C6
Limited quantity: 5 kg
Transport category: 3
Hazard No: 80
Tunnel restriction code: E

Other applicable information (land transport)

Excepted Quantities: E1

Inland waterways transport (ADN)

14.1. UN number: UN3253
14.2. UN proper shipping name: Disodium Trioxosilicate - Mixture
14.3. Transport hazard class(es): 8
14.4. Packing group: III
Hazard label: 8
Classification code: C6
Limited quantity: 5 kg

Other applicable information (inland waterways transport)

Excepted Quantities: E1

Marine transport (IMDG)

14.1. UN number: UN3253
14.2. UN proper shipping name: Disodium Trioxosilicate - Mixture
14.3. Transport hazard class(es): 8
14.4. Packing group: III
Hazard label: 8
Special Provisions: -
Limited quantity: 5 kg
EmS: F-A, S-B

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Other applicable information (marine transport)

Excepted Quantities: E1

Air transport (ICAO)

14.1. UN number:	UN3253
14.2. UN proper shipping name:	Disodium Trioxosilicate - Mixture
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8
Special Provisions:	A803
Limited quantity Passenger:	5 kg
IATA-packing instructions - Passenger:	860
IATA-max. quantity - Passenger:	25 kg
IATA-packing instructions - Cargo:	864
IATA-max. quantity - Cargo:	100 kg

Other applicable information (air transport)

Excepted Quantities: E1

Passenger-LQ: Y845

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Persons responsible for the transport of dangerous goods must be trained.
Security provisions must be observed by all persons involved.
Precautions must be taken to avoid injury

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable, as freight is carried as general cargo, not in bulk.
Minimum quantity regulations are not observed here.

Other applicable information

Hazard number and packing code are available on request.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information****Additional information**

For classification and labelling, see section 2.
Observe trade association/occupational health regulations.
Observe Chemical Ordinance, ChemO
Observe Chemical Risk Reduction Ordinance, ORRChem
Observe Air Quality Control regulation

National regulatory information

Employment restrictions: Observe employment restrictions for young people.
Water contaminating class (D): 1 - slightly water contaminating

SECTION 16: Other information**Changes**

Revised sections: 1-16

Abbreviations and acronyms

vPvB = very persistent very bioaccumulative

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PBT = persistent bioaccumulative toxic

Full text of R phrases referred to under Sections 2 and 3

22	Harmful if swallowed.
31	Contact with acids liberates toxic gas.
34	Causes burns.
36	Irritating to eyes.
36/37	Irritating to eyes and respiratory system.
37	Irritating to respiratory system.
38	Irritating to skin.
50	Very toxic to aquatic organisms.
52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
53	May cause long-term adverse effects in the aquatic environment.

Full text of H statements referred to under Sections 2 and 3

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)