

Safety Data Sheet

according to Regulation (EC) No 1907/2006

MAFOR Evo S

Revision date: 23.02.2018

Product code: 70383_CLP

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

MAFOR Evo S

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

Professional use of dishwash products

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Company name:	DR.SCHNELL GmbH & Co. KGaA	
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****Regulation (EC) No. 1272/2008**

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Hazard Statements:

Causes skin irritation.

2.2. Label elements**Regulation (EC) No. 1272/2008**

Signal word: Warning

Pictograms:

**Hazard statements**

H315 Causes skin irritation.

Precautionary statements

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

2.3. Other hazards

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

SECTION 3: Composition/information on ingredients

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3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
	Alkylalkoholethoxylat			10 - < 15 %
			02-2119630747-33	
	Acute Tox. 4, Skin Irrit. 2; H302 H315			
5949-29-1	Citric acid, mono hydrate			1 - < 5 %
	201-069-1		02-2119773813-30	
	Eye Irrit. 2; H319			

Full text of H and EUH statements: see section 16.

Further Information

Regulation (EC) No. 648/2004 (Detergents regulation)
 15 - 30 % nonionic surfactants
 Preservative: Benzisothiazolinone, Methylisothiazolinone

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.

After contact with skin

Wash with plenty of water.
 Remove contaminated clothing immediately and dispose off safely.
 In case of skin irritation, seek medical treatment.

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.
 In all cases of doubt, or when symptoms persist, seek medical advice.

After ingestion

Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water.
 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.

The following symptoms may occur:

Eye irritation
 Skin irritation

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

Treat symptomatically. No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings. Water spray. / Foam / Carbon dioxide (CO2).

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Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Non-flammable.

Hazardous combustion products: Oxides of carbon, Gas/vapours, harmful.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes.

If necessary Full protective suit.

Additional information

Suppress gases/vapours/mists with water spray jet.

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. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

If necessary Caution, slippery

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers).

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

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

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

Can be diluted with water

Flush residue with plenty of water.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

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

SECTION 7: Handling and storage**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.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Further information on handling

Provide adequate ventilation.

Avoid contact with eyes and skin.

When using do not eat, drink or smoke.

Wash hands before breaks and after work.

General hygiene measures for the handling of chemicals are applicable.

Observe instructions for use.

Notice the directions for use on the label.

Working methods should be applied according to operating instructions.

Keep away from food, drink and animal feedingstuffs.

Contaminated work clothing should not be allowed out of the workplace.

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7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

- Keep container tightly closed. Not to be stored in gangways or stair wells.
- Store product closed and only in original packing.
- Do not use acid sensitive materials.
- Suitable floor material: Acid proof.
- Keep in a cool place.

Further information on storage conditions

- Store separately from alkalis.

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

- Remove contaminated, saturated clothing immediately.
- Draw up and observe skin protection programme.
- When using do not eat or drink. General hygiene measures for the handling of chemicals are applicable.
- Wash hands before breaks and after work.
- Keep away from food, drink and animal feedingstuffs.

Eye/face protection

- Recommendation: Wear eye/face protection. (EN 166)

Hand protection

- Use acid resistant protective gloves (EN374).

No tests have been carried out.

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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

- Wear suitable protective clothing.

Respiratory protection

- With correct and proper use, and under normal conditions, breathing protection is not required.

Environmental exposure controls

- No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	blue
Odour:	characteristic

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pH-Value: 2,2

Changes in the physical state

Melting point: not determined

Initial boiling point and boiling range: 100 °C

Flash point: not determined

Flammability

Solid: not determined

Gas: not determined

Explosive properties

not applicable

Lower explosion limits: not determined

Upper explosion limits: not determined

Auto-ignition temperature

Solid: not determined

Gas: not determined

Decomposition temperature: not determined

Oxidizing properties

not determined

Vapour pressure: not determined

Vapour pressure: not determined

Density: 1,03 g/cm³

Bulk density: not applicable

Water solubility: easily soluble.

Solubility in other solvents

not determined

Partition coefficient: not determined

Viscosity / dynamic: not determined

Viscosity / kinematic: not determined

Vapour density: not determined

Evaporation rate: not determined

Solvent content: not determined

9.2. Other information

Solid content: not determined

Mixability: not determined

Fat solubility (g/l): not determined

Conductivity: not determined

Surface tension: not determined

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

The product has not been tested.

10.2. Chemical stability

Stable with proper storage and handling.

10.3. Possibility of hazardous reactions

No data available

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10.4. Conditions to avoid

See also section 7.
No information available.

10.5. Incompatible materials

See also section 7.
Avoid contact with strong alkalis.
Avoid contact with oxidants.
Avoid contact with acid sensitive materials.

10.6. Hazardous decomposition products

See also section 5.2.
No decomposition when used as directed.

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

Possibly more information on health effects, see Section 2.1 (classification).

Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
	Alkylalkoholethoxylat				
	oral	ATE mg/kg	500		
5949-29-1	Citric acid, mono hydrate				
	oral	LD50 mg/kg	5400	Mouse.	
	dermal	LD50 mg/kg	>2000	Rat	

Irritation and corrosivity

Causes skin irritation.
Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

SECTION 12: Ecological information**12.1. Toxicity**

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

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
5949-29-1	Citric acid, mono hydrate					
	Acute fish toxicity	LC50 mg/l	440-706	96 h		
	Acute crustacea toxicity	EC50 mg/l	~120	48 h	Daphnia magna	

12.2. Persistence and degradability

The surfactant contained in this mixture complies 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

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. According to the recipe, does not contain AOX

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Advice on disposal**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation. Dispose of waste according to applicable legislation.

For example: designated incinerator

E.g. dispose at suitable refuse site.

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 hazardous substances; hazardous waste

Waste disposal number of contaminated packaging

150102 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); plastic packaging

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself. Dispose of waste according to applicable legislation.

Completely empty containers

Contaminated packages must be completely emptied and can be re-used following proper cleaning.

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)****14.1. UN number:**

not applicable

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14.2. UN proper shipping name: not applicable**14.3. Transport hazard class(es):** not applicable**14.4. Packing group:** not applicable**Inland waterways transport (ADN)****14.1. UN number:** not applicable**14.2. UN proper shipping name:** not applicable**14.3. Transport hazard class(es):** not applicable**14.4. Packing group:** not applicable**Marine transport (IMDG)****14.1. UN number:** not applicable**14.2. UN proper shipping name:** not applicable**14.3. Transport hazard class(es):** not applicable**Air transport (ICAO-TI/IATA-DGR)****14.1. UN number:** not applicable**14.2. UN proper shipping name:** not applicable**14.3. Transport hazard class(es):** not applicable**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not a hazardous material with respect to these transportation regulations.

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

2004/42/EC (VOC): 0%

Additional information

To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Water contaminating class (D): 2 - clearly water contaminating

15.2. Chemical safety assessment

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

SECTION 16: Other information**Changes**

Revised sections: 1 - 16

Abbreviations and acronyms

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

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ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method

Relevant H and EUH statements (number and full text)

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

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.)