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

SDS No. : 578664
V001.0

Somat Klarspüler Trockenbooster

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Replaces version from: -

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

1.1. Product identifier
Somat Klarspüler Trockenbooster

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use:
auto dish washing

1.3. Details of the supplier of the safety data sheet
Henkel & Cie. AG, Pratteln
Salinenstrasse 61
CH-4133 Pratteln
Phone: ++41-(0)61-825 7000
Fax-no.: ++41-(0)61-825 7434

1.4. Emergency telephone number
Tox Info Suisse (24h / 7d): +41 44 251 51 51 or 145 (Switzerland and Liechtenstein).

Tox Info Suisse (24h / 7d): +41 44 251 51 51 or 145 (Switzerland and Liechtenstein).

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP):
Eye Dam. 1
H318 Causes serious eye damage.

2.2. Label elements

Label elements (CLP):

Hazard pictogram:

Signal word: Danger

Hazard statement: H318 Causes serious eye damage.

Precautionary statement: P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P280 Wear eye protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor.

Contains:
Alcohols, C12-14, ethoxylated

2.3. Other hazards
None if used properly.

SECTION 3: Composition/information on ingredients

3.1. Substances

3.2. Mixtures

Hazardous substances according to CLP (EC) No 1272/2008:

Hazardous substances CAS-No.	EINECS	REACH-Reg No.	Content	Classification
Alcohols, C12-14, ethoxylated 68439-50-9			>= 5- < 10 %	Serious eye damage 1 H318 Chronic hazards to the aquatic environment 3 H412
Alcohols, C13-15-branched and linear, 12.6-EO/2.1-BuO 111905-53-4			>= 1- < 5 %	Serious eye irritation 2 H319 Acute toxicity 4 H302 Chronic hazards to the aquatic environment 3 H412
Citric acid 77-92-9	201-069-1		>= 1- < 5 %	Serious eye irritation 2 H319

For full text of the H - Phrases indicated by codes only see Section 16 "Other information".

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:
In case of adverse health effects seek medical advice.

Inhalation:
Move to fresh air. In case of breathing difficulties seek immediate medical advise.

Skin contact:
Rinse with water. Take off all clothing contaminated by the product.

Eye contact:
Rinse immediately under running water (for 10 minutes), thereafter seek immediate specialist medical advise.

Ingestion:
Rinse mouth with water, (only if the person is conscious).
Do not induce vomiting, seek medical advice immediately.

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

After inhalation: Irritation of the respiratory tract, coughing. Inhalation of larger amounts may cause laryngospasm with shortness of breath.

After skin contact: Temporary irritation of the skin (redness, swelling, burning).

After eye contact: Corrosive, may cause permanent damage to eyes (impairment of vision).

After ingestion: Ingestion may cause irritation of mouth, throat, digestive tract, diarrhea and vomiting. Vomit may get into the lungs causing damage (aspiration).

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

After inhalation: No special action.
After skin contact: No special action.
After eye contact: No special action.
After ingestion: Do not induce vomiting. Single administration of a non-carbonated beverage (water or tea).
After ingestion: In case of ingestion of larger or unknown quantities administer a defoamer (Dimeticon or Simeticon).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water spray jet (if possible, avoid full jet). Adapt the fire-fighting measures to the environmental conditions. Commercially available extinguishers are suitable for fighting incipient fires. The product itself does not burn.

Extinguishing media which must not be used for safety reasons:
None

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products can be formed by pyrolysis and/or carbon monoxide.

5.3. Advice for firefighters

Use personal protective equipment and self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.
Ensure adequate ventilation.
Danger of slipping on spilled product.
If large amounts are released contact the fire service.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Remove mechanically. Rinse away residue with plenty of water.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

No special measures required if used properly.

Hygiene measures:
Protective equipment only required in case of industrial use or for large packs (not for household packs)
Avoid contact with skin and eyes. Remove soiled or soaked clothing immediately. Wash off any contamination that gets onto the skin with plenty of water, skin care.

7.2. Conditions for safe storage, including any incompatibilities
Store dry at between +5 and +40°C.
Consider national regulations.

7.3. Specific end use(s)
auto dish washing

SECTION 8: Exposure controls/personal protection

Only relevant for professional/industrial use

8.1. Control parameters
Valid for
Switzerland

Ingredient [Regulated substance]	ppm	mg/m³	Value type	Short term exposure limit category / Remarks	Remarks
FORMIC ACID 64-18-6	5	9,5	Time Weighted Average (TWA):		SMAK
FORMIC ACID 64-18-6				If in compliance with the OEL and BEL values, then there should be no risk of reproductive damage.	SMAK
FORMIC ACID 64-18-6	10	19	Short Term Exposure Limit (STEL):		SMAK

8.2. Exposure controls

Respiratory protection:
Not needed.

Hand protection:
For the contact with product protective gloves made from Spezial-Nitril (material thickness > 0.1 mm, break through time > 480 min class 6) are recommended according to EN 374. In the case of longer and repeated contact please note that in practice the penetration times may be considerably shorter than those determined according to EN 374. The protective gloves must always be checked for their suitability for use at the specific workplace (e.g. mechanical and thermal stress, antistatic effects, etc.). The gloves must be replaced immediately at the first signs of wear and tear. We recommend to change single-use protective gloves periodical and a hand care plan in cooperation with a glove manufacturer and the trade association in accordance with the local operating conditions.

Eye protection:
Wear tight fitting goggles.

Skin protection:
Protective clothing against chemicals. Observe manufacturer's instructions.

SECTION 9: Physical and chemical properties

The following data apply to the whole mixture.

a) Appearance	liquid clear colourless
b) Odor	citric
c) Odour threshold	No data available / Not applicable
d) pH (20 °C (68 °F); Conc.: 100 % product)	2,2 - 2,5
e) Melting point	No data available / Not applicable

f) Initial boiling point and boiling range	No data available / Not applicable
g) Flash point	100 °C (212 °F)No flash point up to 100°C. Aqueous preparation.
h) Evaporation rate	No data available / Not applicable
i) Flammability (solid , gas)	No data available / Not applicable
j) Upper / lower flammability or explosive limits	No data available / Not applicable
k) Vapour pressure	No data available / Not applicable
l) Vapor density	No data available / Not applicable
m) Relative density	
Density (20 °C (68 °F))	1,000 - 1,017 g/cm3
n) Solubility (ies)	soluble in water
o) Partition coefficient: n-octanol/water	No data available / Not applicable
p) Auto-ignition temperature	No data available / Not applicable
q) Decomposition temperature	No data available / Not applicable
r) Viscosity	No data available / Not applicable
s) Explosive properties	No data available / Not applicable
t) Oxidising properties	No data available / Not applicable

9.2. Other information

Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity
None if used for intended purpose.

10.2. Chemical stability
Stable under normal conditions of temperature and pressure.

10.3. Possibility of hazardous reactions
See section reactivity

10.4. Conditions to avoid
No decomposition if used according to specifications.

10.5. Incompatible materials
None if used properly.

10.6. Hazardous decomposition products
No decomposition if used according to specifications.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Citric acid 77-92-9	LD50	5.400 mg/kg	mouse	OECD Guideline 401 (Acute Oral Toxicity)

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Citric acid 77-92-9	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

No substance data available.
No data available.

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Alcohols, C12-14, ethoxylated 68439-50-9	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Alcohols, C13-15-branched and linear, 12.6-EO/2.1-BuO 111905-53-4	slightly irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Citric acid 77-92-9	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Alcohols, C12-14, ethoxylated 68439-50-9	corrosive		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Alcohols, C13-15-branched and linear, 12.6-EO/2.1-BuO 111905-53-4	irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Citric acid 77-92-9	highly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
Alcohols, C12-14, ethoxylated 68439-50-9	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Alcohols, C12-14, ethoxylated 68439-50-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Alcohols, C12-14, ethoxylated 68439-50-9	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Alcohols, C12-14, ethoxylated 68439-50-9	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Citric acid 77-92-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Alcohols, C12-14, ethoxylated 68439-50-9	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Citric acid 77-92-9	negative	oral: gavage		rat	OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
Citric acid 77-92-9	negative	oral: gavage		rat	EU Method B.22 (Rodent Dominant Lethal Test)

Carcinogenicity

No data available.

Reproductive toxicity:

No data available.

STOT-single exposure:

No data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Alcohols, C12-14, ethoxylated 68439-50-9	NOAEL >= 500 mg/kg	oral: feed	90 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Citric acid 77-92-9	NOAEL 4.000 mg/kg	oral: gavage	5 d daily	rat	not specified

Aspiration hazard:

No data available.

SECTION 12: Ecological information

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Alcohols, C12-14, ethoxylated 68439-50-9	LC50	2 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Alcohols, C12-14, ethoxylated 68439-50-9	NOEC	> 0,1 - 1 mg/l	28 d	not specified	OECD Guideline 210 (fish early lite stage toxicity test)
Alcohols, C13-15-branched and linear, 12.6-EO/2.1-BuO 111905-53-4	LC50	> 1 - 10 mg/l	48 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Citric acid 77-92-9	LC50	> 250 mg/l	48 h	Leuciscus idus	DIN 38412-15

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Alcohols, C12-14, ethoxylated 68439-50-9	EC50	1,2 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Alcohols, C13-15-branched and linear, 12.6-EO/2.1-BuO 111905-53-4	EC50	> 1 - 10 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Citric acid 77-92-9	EC50	275 mg/l	24 h	Daphnia magna	not specified

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Alcohols, C13-15-branched and linear, 12.6-EO/2.1-BuO 111905-53-4	NOEC	> 0,1 - 1 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Alcohols, C12-14, ethoxylated 68439-50-9	EC50	1,3 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	DIN 38412-09
Citric acid 77-92-9	EC50	> 640 mg/l	7 d	Scenedesmus quadricauda	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Alcohols, C12-14, ethoxylated 68439-50-9	EC0	10 mg/l	30 min	Pseudomonas putida	DIN 38412, part 27 (Bacterial oxygen consumption test)
Alcohols, C13-15-branched and linear, 12.6-EO/2.1-BuO 111905-53-4	EC0	> 1.000 mg/l			not specified
Citric acid 77-92-9	EC0	1.000 mg/l	30 min		not specified

12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Alcohols, C12-14, ethoxylated 68439-50-9	readily biodegradable	aerobic	78 - 79 %	30 d	EU Method C.4-E (Determination of the "Ready" BiodegradabilityClosed Bottle Test)
Alcohols, C13-15-branched and linear, 12.6-EO/2.1-BuO 111905-53-4	readily biodegradable	no data	> 60 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Citric acid 77-92-9	readily biodegradable	aerobic	79 %	30 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

12.3. Bioaccumulative potential

Does not bioaccumulate.

No substance data available.

12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
Citric acid 77-92-9	-1,72	20 °C	EU Method A.8 (Partition Coefficient)

12.5. Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT / vPvB
Alcohols, C12-14, ethoxylated 68439-50-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Citric acid 77-92-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

Other adverse effects of this product for the environment are not known to us.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:
Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:
Completely empty containers can be disposed of with the municipal waste.

Waste code
20 01 29: Municipal wastes, separately collected fractions, detergents containing dangereous substances

SECTION 14: Transport information

14.1. UN number

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

14.2. UN proper shipping name

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

14.3. Transport hazard class(es)

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

14.4. Packing group

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

14.5. Environmental hazards

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

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

not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

VOC content (VOCV 814.018 VOC regulation CH)	0,0 %

Declaration of ingredients according to Detergent Regulation 648/2004/EC

5 - 15 %	non-ionic surfactants
Further ingredients	Perfumes
	Limonene
	preservation agents
	formic acid

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

H302 Harmful if swallowed.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

This Safety Data Sheet contains changes from the previous version in Section(s): 1-16