

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

SWISS⁺ATEST

Date of issue: 11.05.2020

Date of revision: -

Version: 1.0

Supersedes version: -

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: [Article 610 IEC Detergent D / acc. IEC60436:2015 \(with Savinase 6T and Termamyl 120T\)](#)
Synonym: [IEC 60436 Geschirrspüler Referenz-Reiniger Typ D](#)
Index-No.: -
EG-No.: -
CAS-No.: -
REACH Registration No:
Product description: Dishwashing agent

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

Identified uses: [for application in dishwashers IEC 60436](#)
Uses advised against: -

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier:
[Swissatest Testmaterialien AG](#)
[Mövenstrasse 12](#)
[9015 St.Gallen](#)
[Switzerland](#)

www.swissatest.ch

Telephone 0041 71 311 80 55

E-Mail info@swissatest.ch

1.4 Emergency telephone number

[Tox Info Suisse](#)

Telephone 145

2. Hazards identification

2.1 Classification of the substance or mixture

Based on the calculation methods according to Regulation (EC) No 1272/2008 [CLP] the product is classified as hazardous.

Skin irritation, Category 2; H315
Serious eye damage, Category 1; H318

Additional information

none

2.2 Labelling elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms:



GHS05

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Signal word: DANGER

Hazard components for labelling:

Contains:

Silicic acid, sodium salt (MR >1.6 - 2.6), sodium carbonate peroxyhydrate

Hazard statements:

H315: Causes skin irritation

H318: Causes serious eye damage

Precautionary statements:

P280: Wear protective gloves / protective clothing / eye protection.

P305+351+338: 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/doctor.

2.3 Other hazards

The mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3. Composition/information on ingredients

3.1 Substances

The product is a mixture.

3.2 Mixtures

Substance name	CAS-N°	EC-N°	Content [wt.%]	Classification according to (EG) N° 1272/2008
Sodium carbonate	497-19-8	207-838-8	30 – <50	Serious eye damage/eye irritation, Category 2; H319
Silicic acid, sodium salt (MR >1,6-2,6)	1344-09-8	215-687-4	5 – <10	Skin irritation, Category 2; H315 Serious eye damage, Category 1; H318 Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation; H335
Sodium percarbonate	15630-89-4	239-707-6	5 – <7	Oxidising Solids, Category 2, 3; H272 Acute toxicity (oral), Category 4; H302 Serious eye damage, Category 1; H318
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	120313-48-6	-	1 – <5	Skin irritation, Category 2; H315 Hazardous to the aquatic environment Acute Hazard, Category 1; H400 Hazardous to the aquatic environment — Chronic Hazard, Category 2, H411 M=1

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4. First-aid measures

4.1 Description of first aid measures

General instructions:	Remove contaminated clothes and wash them before reuse.
After inhalation:	Move the affected person to fresh air and ensure unhindered breathing. In case of symptoms, seek medical attention.
After skin contact:	Consult doctor in case of continuous skin irritation.
After eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if worn and easy to do. Continue rinsing. Seek immediate medical attention.
After ingestion:	Rinse mouth and give 1-2 glasses of water to drink. Do not induce vomiting. Arrange medical treatment.

4.2 Most important symptoms and effects, both acute and delayed

After eye and skin contact: Irritation / redness

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic customary treatment.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Powder, foam, carbon dioxide, water fog.

Unsuitable extinguishing media: Water jet.

5.2 Special hazards arising from the substance or mixture

Formation of toxic pyrolysis products.
Formation of hazardous smoke or vapours possible (CO).
Formation of hazardous silica compounds.
Avoid inhalation of smoke and vapours.

5.3 Advice for firefighters

Move container from area, if it can be done without risk. Avoid inhalation of vapours or smoke. Wear self-contained breathing apparatus and chemical resistant gloves.
Contain contaminated extinguishing water and dispose it according to official regulations.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Provide sufficient ventilation.

Avoid dust formation.

Avoid skin and eye contact. Use personal protective equipment (see chapter 8).

Advice for emergency responders: Personal protective equipment according to EN 469 is recommended.

6.2 Environmental precautions

Do not allow product or residues to enter into sewage / surface waters /groundwater.

6.3 Methods and material for containment and cleaning up

Product can be disposed of by mechanical means. Avoid dust formation. Dispose of product according to chapter 13.

6.4 Reference to other sections

Information on safe handling: see chapter 7.

Information on PSA: see chapter 8.

Information on disposal: see chapter 13.

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7. Handling and storage

7.1 Precautions for safe handling

Provide good ventilation at workplace.

Avoid dust formation and dust deposition. In case of deposition, provide dust suction.

Avoid skin and eye contact.

Remove contaminated clothes and wash them before reuse.

Wash hands thoroughly after handling and before break of work.

Do not eat, drink or smoke when using this product.

Observe skin protection plan.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Store only in the original container.

Keep container tightly closed. Store in a dry place. Keep apart from food and feedstuffs.

Advice on storage assembly:

Store apart from strong oxidizers (storage class 5).

Storage class: 11/13 (further hazardous solids)

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. Exposure control and personal protection

8.1 Control parameters

8.1.1 Occupational exposure limit values:

Threshold limit values according to SUVA:					
Substance name	CAS-N°	TLV (ppm)	TLV (mg/m ³)	STEL (ppm)	STEL (mg/m ³)
Sodium carbonate	497-19-8	-	-	-	-
Silicic acid, sodium salt (MR >1,6-2,6)	1344-09-8	-	-	-	-
Sodium percarbonate	15630-89-4	-	-	-	-
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	120313-48-6	-	-	-	-

General exposure limit value for inhalable dusts: 10 mg/m³

General exposure limit value for dust fraction entering alveoli: 3 mg/m³

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Provide sufficient ventilation, e.g. by local exhaust ventilation. Ensure appropriate decontamination and cleaning equipment (running water, eye-wash station).

8.2.2 Individual protective measures, personal protective equipment

Eye / face protection

Protective glasses with side protection (EN 166).

Skin protection

Skin contact can cause skin irritation. Use protective gloves (Recommendation: gloves with chemical protection according to EN 374-3).

Other skin protection

Skin protection according to SUVA information booklet 44074 is recommended.

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Respiratory protection

Not necessary if sufficient ventilation is provided. For short-term exceedances of the general exposure limits for dust use particle filter P2 according to EN 143.

Body protection

Standard antistatic work clothes.

General protective and hygiene measures:

Do not eat, drink or smoke during work.

8.2.3 Environmental exposure controls

Ensure compliance with local emission standards. Limit discharge to air, water and soil.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Powder
Colour:	White
Odour:	Characteristic
Odour threshold:	No data available
pH-value (1% in water)	ca. 11
Melting point:	No data available
Boiling point:	No data available
Flashpoint:	Not applicable
Ignition temperature:	No data available
Evaporation rate:	No data available
Explosion hazard:	Not applicable
Lower / upper explosion limits:	Not applicable
Oxidizing properties:	None
Vapour pressure:	Not applicable
Vapour density:	not applicable
Density at 20 °C:	No data available
Solubility in water:	Soluble
Self-ignition	Not applicable
Decomposition temperature	Not applicable
Viscosity:	No data available
log K _{ow} :	No data available

9.2 Other information

None.

10. Stability and reactivity

10.1 Reactivity

The product is stable when used according to the instructions for use (see chapter 7).

10.2 Chemical stability

The product is stable when used according to the instructions for use (see chapter 7).

10.3 Possibility of hazardous reactions

The product reacts with acids and strong oxidants.

10.4 Conditions to avoid

Avoid strong heating and humidity.

10.5 Incompatible materials

No information available.

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10.6 Hazardous decomposition products

The product will not degrade to unstable products when used according to the instructions for use. In case of fire, toxic smoke gases (CO), pyrolysis products and silicic compounds may form.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

For ingredients:

Substance name	CAS-N°	LD ₅₀ oral (test organism)	LD ₅₀ dermal (test organism)	LC ₅₀ inhalation (test organism)
Sodium carbonate	497-19-8	4'090 mg/kg (rat; IUCLID)	-	5'750 mg/l 2h (rat, OECD 403)
Silicic acid, sodium salt (MR >1,6-2,6)	1344-09-8	>2'000 mg/kg (rat)	-	-
Sodium percarbonate	15630-89-4	1'034 mg/kg (rat)	>2'000 mg/kg (rabbit)	>4'580 mg /m ³ /1h (rat)
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	120313-48-6	>2'000 mg/kg (rat)	-	-

For product:

ATE-mix, oral ingestion >2000 mg/kg

Skin corrosion / irritation:

Irritates skin.

Serious eye damage / eye irritation

May cause causes severe eye irritation or damage.

Respiratory or skin sensitization

The product is not classified. The product does not contain substances classified as sensitizing.

Germ cell mutagenicity

The product is not classified. The product does not contain substances classified as mutagenic.

Carcinogenicity

The product is not classified. The product does not contain substances classified as carcinogenic.

Reproductive toxicity

The product is not classified. The product does not contain substances classified as toxic for reproduction.

Specific target organ toxicity, repeated exposure

The product is not classified. The product does not contain substances classified as, specific target organ toxicant after repeated exposure.

Specific target organ toxicity, single exposure

The product is not classified. The product does not contain substances classified as, specific target organ toxicant after single exposure.

Aspiration hazard

The product is not classified. The product does not contain any substances classified as aspiration hazard.

Other toxicological properties

Not known.

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12. Ecological information

12.1 Ecotoxicity For ingredients:

Substance name	CAS-N°	Indicator	Value (median)
Sodium carbonate	497-19-8	LC50 (96 h), <i>Lepomis macrochirus</i>	300 mg/L (IUCLID)
		EC50 (48 h) <i>Daphnia magna</i>	265 mg/L (IUCLID)
Silicic acid, sodium salt (MR >1,6-2,6)	1344-09-8	LC 50 (96 h) fish	>200 mg/L
Sodium percarbonate	15630-89-4	LC50 (96 h) <i>Pimephales promelas</i>	70.7 mg/L
		EC50 (48 h) <i>Daphnia pulex</i>	4.9 mg/L
		NOEC (96 h) <i>Pimephales promelas</i>	7.4 mg/L
		NOEC (48 h) <i>Daphnia pulex</i>	2 mg/L
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	120313-48-6	LC50 (96 h) <i>Leuciscus idus</i>	1- 10 mg/L
		EC50 (48 h) <i>Daphnia magna</i>	1 mg/L
		IC50 (72 h) algae	0.1 – 1 mg/L
		NOEC (21 d) <i>Daphnia magna</i>	0.25 mg/L
		NOEC (72 h) <i>Scenedesmus subspicatus</i>	0.063 mg/L (OECD 201)

For product:

The product is not classified. No test data are available.

12.2 Persistence and degradability

No data available.

The surfactants used in this product are biodegradable in line with the requirements of EU Detergent Regulation (EC) No 648/2004. 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

The mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No data available.

13. Disposal considerations

13.1 Waste treatment methods

Product (pure product, empty and partly emptied containers)

Remove as hazardous waste.

Waste disposal code:

Ordinance on the movement of waste SR 814.610:

20 01 29 [S] detergents containing dangerous substances

Absorbing agents polluted with product:

Remove as hazardous waste.

Waste disposal code:

Ordinance on the movement of waste SR 814.610:

15 02 02 [S] absorbents, filter materials (including oil filters not otherwise specified), wiping cloths,

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protective clothing contaminated by dangerous substances

14. Transport information

The product is not classified as dangerous good according to transport regulations.

14.1 UN Number

-

14.2 UN proper shipping name

-

14.3 Transport hazard class

ADR / RID / IMDG-Code / IATA-Dangerous Goods Regulations

-

14.4 Packing group

-

14.5 Environmental hazards

Label environmentally hazardous substances

ADR / RID / IMDG-Code: no

IATA-DGR: no

14.6 Special precautions for user

-

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

Pollution category (X, Y or Z): not classified

Ship type (1, 2 or 3) : not classified

15. Regulatory information

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

Water pollution class according to AwSV:

Class 1, weak water pollutant.

Chemicals Ordinance (ChemO) SR 813.11:

Group according to Art. 61 ChemO: no group.

Major Accident Ordinance (MAO) SR 814.012:

Quantity threshold according to MAO: -

Restrictions according to Chemical Risk Reduction Ordinance (ORRChem) 814.81:

Dishwasher detergent (annexe 2.2).

Ingredients, 64812004/EG: 5 - <15% polycarboxylate, 5 - <15% bleaching agent based on oxygen, < 5% nonionic surfactants, enzymes.

VOC-Ordinance (OVOC) SR 814.018:

VOC-content: 0%.

15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out for this product by the supplier.

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16. Other information

Changes made since last edition

None, first edition.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par route

AwSV : Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen vom 18. April 2017.

CAS: Chemical Abstracts Service

ChemO: Ordinance on Protection against Dangerous Substances and Preparations SR 813.11

CLP: Classification, Labelling and Packaging of Chemicals

EC: effect concentration

FDHA: Federal Department of Home Affairs

ECHA: European Chemicals Agency

FOEN: Federal Office for the Environment

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

GWP: Global warming potential

IATA: International Air Transport Association

IMDG: International Maritime Code for Dangerous Goods

IUCLID: International Uniform Chemical Information Database, ECHA.

LC: lethal concentration

LD: lethal dose

MAC: maximum admissible concentration at workplace

MAO: Ordinance on Protection against Major Accidents SR 814.012

NOEC: No Observed Effect Concentration

OVOC: Ordinance on the Incentive Tax on Volatile Organic Compounds SR 814.018

PBT: persistent, bioaccumulative, toxic

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer

vPvB: very persistent, very bioaccumulative

VOC: volatile organic compounds

ORRChem: Ordinance on the Reduction of Risks relating to the Use of Certain Particularly Dangerous Substances, Preparations and Articles SR 814.81

STEL: Short term exposure limit

WPO: Waters Protection Ordinance

Key literature references and sources of data

MSDS Sicherheitsdatenblatt IEC 60436 Geschirrspüler Referenz-Reiniger Typ D, wfk Testgewebe GmbH, Version 03 vom 14.03.2016.

IUCLID: International Uniform Chemical Information Database, ECHA.

Methods in accordance with article 9 of Regulation (EC) No 1272/2008 [CLP] applied for the evaluation of hazard information for substances and mixtures:

Additivity principle according to Annex 1, 3.3.3.3; Calculation methods according to Annex 1, 2.6.4.3.

Full text of Statements referred to under sections 2 – 15:

H272: May intensify fire; oxidiser.

H302: Harmful if swallowed.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

H400: Very toxic to aquatic life.

H411: Toxic to aquatic life with long lasting effects

P280: Wear protective gloves / protective clothing / eye protection.

P305+351+338: 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/doctor

Further information

The information provided in this material safety data sheet correspond to our current state of knowledge and are in accordance national and EU legislation. The workplace conditions of the users are however not known to us and beyond our control. The user is responsible for the adherence to all legal obligations. The information in this data sheet describe the safety requirements of our products and do not constitute a guarantee of product properties.