

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

Article 610 IEC-Detergent D according to IEC 60436

Date of issue: 15.08.2025

Date of revision: -

Version: 2.0 Supersedes version: 1.0 (11.05.2020)

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

1.1 Product identifier

Trade name: **Article 610 IEC Detergent D**
Synonym: IEC 60436 Detergent D according to IEC 60436
UFI: VQ00-U07S-R004-5SJQ
REACH Registration No: -
Product description: Specialized powder detergent for testing and inspecting dishwasher performance.

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

Identified uses: Reference detergent for performance testing of dishwashers in accordance with IEC 60436. For professional use only.
Uses advised against: -

1.3 Details of the supplier of the safety data sheet

Swissatest Testmaterialien AG
Mövenstrasse 12
9015 St. Gallen
Switzerland

Telephone: 0041 71 311 80 55
E-Mail: info@swissatest.ch
Internet: www.swissatest.ch

1.4 Emergency telephone number

Tox Info Suisse

Telephone 145

2. Hazards identification

2.1 Classification of the substance or mixture

The product is classified as a hazardous substance based on the calculation method according to Regulation (EC) No. 1272/2008 (CLP Regulation) in its latest valid version.

Eye irritation (Category 2), H319
Hazardous to the aquatic environment – Chronic hazard (Category 3), H412

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms:



GHS07

Signal word: WARNING

Hazard components for labelling:

Contains: Sodium carbonate, alcohols, C12-15- branched and linear, ethoxylated propoxylated

Hazard statements:

H319: Causes serious eye irritation.

H412: Harmful to aquatic life with long lasting effects.

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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.

P337+P313: If eye irritation persists: Get medical advice.

Components according to 648/2004 EG:

5 - <15% polycarboxylates

5 - <15% oxygen-based bleaching agents

< 5% non-ionic surfactants

enzymes

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. The product does not contain any components with endocrine-disrupting properties at or above 0.1%.

3. Composition/information on ingredients

3.1 **Substances:** The product is a mixture.

3.2 Mixtures

Stoffname	CAS-Nr	EG-Nr.	Anteil [Gew. %]	Einstufung gem. Verordnung (EG) Nr. 1272/2008
Sodium carbonate	497-19-8	207-838-8	30 - < 50	Eye Irrit. 2, H319
Silicic acid, sodium salt (MR >1,6-2,6)	1344-09-8	215-687-4	5 - < 10	Eye Irrit. 2, H319 Skin Irrit. 2, H315 STOT SE 3, H335 SCL [%]: ≥ 40: Skin Irrit. 2, H315; ≥ 40: Eye Irrit. 2, H319; ≥ 40: STOT SE 3, H335 ¹
Sodium percarbonate	15630-89-4	239-707-6	5 - < 7	Eye Dam. 1, H318 Acute Tox. 4, H302 Ox. Sol. 3: H272 SCL [%]: 7.5 ≤ C < 25: Eye Irrit. 2, H319; > 25 : Eye Dam. 1, H318.
Alcohols, C12-15- branched and linear, ethoxylated propoxylated	120313-48-6	-	1 – <5	Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 2, H411

¹According to MSDS wfk IEC P Waschmittel Basispulver, Version 2.0, 20.12.2024.

SVHC

This preparation does not contain substances of very high concern (SVHC) in a concentration of ≥ 0.1 % according to Regulation (EC) 1907/2006, Article 57.

Further Information: -

See Section 16 for wording of H and P statements.

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 immediate medical attention.

After skin contact: Rinse with water. If skin irritation persists, consult a doctor.

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After eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present 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. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Skin irritation / redness.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Adapt fire extinguishing measures to the surroundings.
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

In the event of a fire, a self-contained breathing apparatus and a full protective suit should be worn. Do not inhale vapours and fumes. If safe to do so, remove the container from the hazard area.
Collect contaminated extinguishing water and dispose of it in accordance with regulations.

6. Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures

Advice for non-emergency personnel: Ensure 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

Prevent release into sewers, surface water, or 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.

7. Handling and storage

7.1 Precautions for safe handling

Provide sufficient ventilation at workplace. Avoid dust formation and dust deposition.
Avoid skin and eye contact.
Wash hands thoroughly after handling and before break of work.
Do not eat, drink or smoke when using this product.
Observe skin protection plan.

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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 – product is hygroscopic.
Keep away from food and animal feed.

Advice on storage assembly: Keep away from acids and strong oxidizing agents.

Storage class: 11/13 (other solids with hazard labelling)

7.3 Specific end use(s)

Apart from the uses specified in Section 1.2, no other specific uses are identified.

8. Exposure control and personal protection

8.1 Control parameters

8.1.1 Occupational exposure limit values:

Threshold limit values according to SUVA:					
Designation	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:

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

8.2.2 Individual protective measures, personal protective equipment

Eye / face protection

Safety goggles with side protection (EN 166).

Skin protection

Skin contact can cause severe skin irritation Use protective gloves according to EN 374-3. Glove material: nitrile rubber, minimum layer thickness: 0.4 mm, break through time 480 min. Please contact the glove supplier for further information on material thickness and penetration time.

Respiratory protection

Not necessary if sufficient ventilation is provided.

Body protection

Standard work clothing.

General protective and hygiene measures:

Do not eat, drink, or smoke at the workplace.

Keep away from drinks, food, and animal feed.

Wash hands before breaks and after work.

Use of skin protection measures in accordance with SUVA Information Sheet 44074 is recommended.

8.2.3 Environmental exposure controls

Compliance with local emission limit values must be ensured.

Emissions to air, water, and soil should be avoided.

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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
Melting point:	No data available
Boiling point:	No data available
Self-ignition	Not applicable
Lower / upper explosion limits:	Not applicable
Flashpoint:	Not applicable
Ignition temperature:	Not applicable
Decomposition temperature	No data available
pH-value (1% in water)	11
Kinematic Viscosity:	Not applicable
Solubility in water:	Soluble
log K _{ow} :	Not applicable
Vapour pressure:	Not applicable
Vapour density:	No data available
Density at 20 °C:	No data available
Particle characteristics	No data available

9.2 Other information

None.

10. Stability and reactivity

10.1 Reactivity

The product is stable when used and stored according to the manufacturer's instructions for use (see chapter 7).

10.2 Chemical stability

No decomposition when used as intended (see Section 7).

10.3 Possibility of hazardous reactions

Not known.

10.4 Conditions to avoid

Avoid heat and humidity.

10.5 Incompatible materials

No information available.

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 hazardous silicates may form.

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11. Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

For ingredients: according to ECHA (unless otherwise indicated)

Designation	CAS-N°	LD ₅₀ oral (test organism)	LD ₅₀ dermal (test organism)	LC ₅₀ inhalation (test organism)
Sodium carbonate	497-19-8	2'800 mg/kg bw (rat)	2'000 mg/kg bw (rabbit)	2.3 mg/L air (2 h; rat)
Silicic acid, sodium salt (MR >1,6-2,6)	1344-09-8	3'400 mg/kg bw (rat)	5'000 mg/kg bw (rat)	2.06 mg/L air (4 h; rat)
Sodium percarbonate	15630-89-4	893 – 1'164 mg/kg bw (rat)	2'000 mg/kg bw (rabbit)	no data available
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	120313-48-6	no data available	no data available	no data available

For product:

ATE-mix, oral ingestion >2000 mg/kg

Skin corrosion / irritation:

The product is not classified. The product contains < 15 % of substances classified as potentially skin irritating.

Serious eye damage / eye irritation

The product is classified. May cause severe eye irritation.

Respiratory or skin sensitization

The product is not classified. The product does not contain substances classified as respiratory and skin 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 contains < 10 % of substances classified as specific target organ toxicants after single exposure.

Aspiration hazard

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

11.2 Information on other hazards

Endocrine disruption properties

This mixture does not contain any components with endocrine disrupting properties in concentrations ≥ 0.1 %, as defined in Article 57(f) of the REACH Regulation or in Delegated Regulations (EU) 2017/2100 and (EU) 2023/707. Therefore, no health-relevant effects due to endocrine disrupting properties are present.

Other information

Not known.

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12. Ecological information

12.1 Toxicity

For ingredients: according to ECHA (unless otherwise indicated)

Designation	CAS-N°	Indicator	Value
Sodium carbonate	497-19-8	LC50 (4 days) fish	300 mg/L
		EC50 (48 h) aquatic invertebrates	200 - 227 mg/L
		EC50 (72 h) aquatic algae and cyanobacteria	800 mg/L
Silicic acid, sodium salt (MR >1,6-2,6)	1344-09-8	LC50 (4 days) fish ¹	260 – 1'108 mg/L
		EC50 (48 h) aquatic invertebrates ¹	1.7 g/L
		EC50 (72 h) aquatic algae and cyanobacteria ¹	207 - 345.4 mg/L
Sodium percarbonate	15630-89-4	LC50 (4 days) fish	70.7 mg/L
		EC50 (48 h) aquatic invertebrates	4.9 mg/L
		EC50 (72 h) aquatic algae and cyanobacteria	No data available.
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	120313-48-6	LC50 (4 days) fish	1- 10 mg/L*
		EC50 (48 h) aquatic invertebrates	1 mg/L*
		EC50 (72 h) aquatic algae and cyanobacteria	0.1 – 1 mg/L*

* See MSDS Art. 610, V1.0, 14.08.2020.

For product:

No data available.

12.2 Persistence and degradability

The surfactants contained in the product are biodegradable in accordance with the requirements of Regulation (EC) No 648/2004. Data supporting this property are held at the disposal of the competent authorities of the Member States and will be made available to them upon 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 Endocrine disrupting properties

This mixture does not contain any components with endocrine disrupting properties in concentrations $\geq 0.1\%$, as defined in Article 57(f) of the REACH Regulation or in Delegated Regulations (EU) 2017/2100 and (EU) 2023/707. Therefore, no environmentally relevant effects due to endocrine disrupting properties are present.

12.7 Other adverse effects

Water hazard class 1 (self-classification): slightly hazardous to water

Avoid release into the environment. Do not discharge undiluted or in large quantities into water bodies or the sewage system.

13. Disposal considerations

13.1 Waste treatment methods

Dispose of in accordance with official regulations.

Do not dispose of with household waste. Do not release into the sewage system.

Product (pure product, empty and partly emptied containers)

Dispose of as hazardous waste.

Waste disposal code:

Ordinance on the movement of waste SR 814.610:

20 01 29

[S] detergents containing dangerous substances

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Absorbing agents polluted with product:

Do not dispose of with household waste.

Waste disposal code:

Ordinance on the movement of waste SR 814.610:

15 02 03

Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in
15 02 02

14. Transport information

The product is not classified as a 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 Maritime transport in bulk according to IMO instruments

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 hazard class according to AwSV:

Class 1, slightly hazardous to water

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: -

Guidelines to the WBF-Ordinance on Hazardous Work for Young Persons (SR 822.115.2):

No restrictions.

Maternity Protection Ordinance SR 822.111.52:

No restrictions.

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

Dishwasher detergent (annexe 2.2): 5 - <15% polycarboxylates, 5 - <15% oxygen-based bleaching agents, < 5% non-ionic surfactants, enzymes

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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.

16. Other information

Changes made since last edition

Update classification. Actualisation of MSDS, all sections.

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

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

ECHA Chemicals Database

Gestis Online Database

MSDS Art. 610, Version 1, 14.08.2020

SUVA Maximum Workplace Concentration Database

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.

H412: Harmful to aquatic life with long lasting effects.

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

P305 + P351 + P338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: get medical advice.

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Training instructions

Employees must be regularly trained in the safe handling of the products based on the information in the safety data sheet and the local conditions of the workplace. National regulations on the training of employees in the handling of hazardous substances must be observed.

Further information

The information in this Safety Data Sheet is based on our current knowledge and complies with national and EU regulations. However, we have no control over the specific working conditions of the user. The user is responsible for ensuring compliance with all applicable legal requirements. The information in this Safety Data Sheet describes the safety requirements of our product and does not constitute a guarantee of product properties.