

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

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1.1 Preparation identification

ZONE Dishwashing Tablets All in 1

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

Relevant identified uses: Dishwasher.

Uses advised against: not determined.

1.3. Details of the supplier of the Safety Data Sheet

Ail sp. z o.o.
ul.Sowia 15
62-080 Tarnowo Podgórne
Poland
e-mail: andrzej@aii-consulting.com
www.aii-consulting.com

1.4 Emergency telephone numbers

112 - the emergency number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture:

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Eye Dam. 1, H318

2.2. Label elements



Signal word: Danger

Hazard statements

H318 - Causes serious eye damage.



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Precautionary statements

- P101** If medical advice is needed, have product container or label at hand
P102 Keep out of reach of children
P280 Wear protective gloves
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/physician

Supplementary information:

Non-applicable

Substances that contribute to the classification

Disodium carbonate, compound with hydrogen peroxide (2:3); Alcohols, C10-16, ethoxylated; Silicic acid, sodium salt (1.6 < MR < 2.6)

2.3. Other hazards

Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII - no

Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII -

Not available

Other hazards which do not result in classification - None known

SECTION 3: Composition/information on ingredients

3.1. Substances: Not applicable

3.2 Mixtures:

Compound	CAS No.	EC No.	Index number	% w/w	Classification according to Regulation No. 1272/2008
Sodium Carbonate	497-19-8	207-838-8	011-005-00-2	10,0-<25,0	Eye Irrit. 2, H319
Disodium carbonate, compound with hydrogen peroxide (2:3)	15630-89-4	239-707-6	-	2,5-<10,0	Ox. Sol. 2, H272 Acute Tox. 4, H302 Eye Dam. 1, H318
Silicic acid, sodium salt (1.6 < MR < 2.6)	1344-09-8	215-687-4	-	1-<2,5	Eye Dam. 1, H318 Skin Irrit. 2, H315 STOT SE 3: H335
Alcohols, C10-16, ethoxylated	68002-97-1	500-182-6	-	1-<2,5	Acute Tox. 4; H302 Eye Dam 1; H318

Additional information:

For full text of H statements, please refer to Section:16

SECTION 4: First aid measures

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the MSDS of this product.

By inhalation:

This product is not classified as dangerous through inhalation, however, it is recommended in case



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of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

This product is not classified as dangerous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

Rinse eyes thoroughly with luke warm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the MSDS of the product.

By consumption:

Do not induce vomiting, but if it does happen keep the head up to avoid inhalation. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2. Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive subproducts are created that can become highly toxic and, consequently, can present a serious health risk.

5.3. Advice for firefighters

Additional provisions:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal See sections 8 and 13.

6.2. Environmental precautions

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container.

6.3. Methods and material for containment and cleaning up

It is recommended:

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

6.4 Reference to other sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and destroy using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container.

7.2. Conditions for safe storage, including any incompatibilities

A.- Technical measures for storage

Minimum Temp.: 5 °C

Maximum Temp.: 25 °C

Maximum time: 36 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information



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see subsection 10.5

7.3. Specific end use(s):

Storage: Store in a dry place at the temperature of 5,0- 25,0 °C. Protect from freezing and direct sun exposure

SECTION 8: Exposure controls/personal protection

8.1. Control parameters:

Substances whose occupational exposure limits have to be monitored in the work environment

Nuisance dust: Inhalable dust 10 mg/m³ // Respirable dust 4 mg/m

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Sodium carbonate CAS: 497-19-8 EC: 207-838-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	10 mg/m ³
Disodium carbonate, compound with hydrogen peroxide (2:3) CAS: 15630-89-4 EC: 239-707-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	5 mg/m ³
Silicic acid, sodium salt (1.6 < MR < 2.6) CAS: 1344-09-8 EC: 215-687-4	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	1,59 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	5,61 mg/m ³	Non-applicable

DNEL (Population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Sodium carbonate CAS: 497-19-8 EC: 207-838-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	10 mg/m ³	Non-applicable	Non-applicable
Silicic acid, sodium salt (1.6 < MR < 2.6) CAS: 1344-09-8 EC: 215-687-4	Oral	Non-applicable	Non-applicable	0,8 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	0,8 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	1,38 mg/m ³	Non-applicable

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PNEC:

Identification				
Disodium carbonate, compound with hydrogen peroxide (2:3) CAS: 15630-89-4 EC: 239-707-6	STP	16,24 mg/L	Fresh water	0,035 mg/L
	Soil	Non-applicable	Marine water	0,035 mg/L
	Intermittent	0,035 mg/L	Sediment (Fresh water)	Non-applicable
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable
Silicic acid, sodium salt (1.6 < MR < 2.6) CAS: 1344-09-8 EC: 215-687-4	STP	348 mg/L	Fresh water	7,5 mg/L
	Soil	Non-applicable	Marine water	1 mg/L
	Intermittent	7,5 mg/L	Sediment (Fresh water)	Non-applicable
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable

Exposure controls:

A.- General security and hygiene measures in the work place

As a preventative measure it is recommended to use basic Personal Protection Equipment, with the corresponding "CE marking" in accordance with Directive 89/686/EC. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the professional exposure limits are exceeded.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Chemical protective gloves		EN 374-1:2003 EN 374-3:2003/AC:2006 EN 420:2003+A1:2009	Replace the gloves at any sign of deterioration.

D.-Ocular and facial protection



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Panoramic glasses against liquid splash		EN 166:2001 EN 172:1994/A1:2000 EN 172:1994/A2:2001 EN ISO 4007:2012	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

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E.- Bodily protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
	Work clothing		EN ISO 13688:2013	For professional use only.
	Anti-slip work shoes		EN ISO 20347:2012 EN ISO 20344:2011	None

F.-Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2002	 Eyewash stations	DIN 12 899 ISO 3864-1:2002

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatil organic compounds:

With regard to Directive 1999/13/EC, this product has the following characteristics:

V.O.C. (Supply): 0,04 % weight
 V.O.C. density at 20 °C: Non-applicable
 Average carbon number: 10,56
 Average molecular weight: 150,31 g/mol

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

For complete information see the product datasheet.

Appearance

Physical state at 20 °C: Solid
 Appearance: Tablets
 Color: Not available
 Odor: Citric



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Volatility:

Boiling point at atmospheric pressure: Non-applicable *
Vapour pressure at 20 °C: Non-applicable *
Vapour pressure at 50 °C: Non-applicable *
Evaporation rate at 20 °C: Non-applicable *

Product description:

Density at 20 °C: Non-applicable *
Relative density at 20 °C: Non-applicable *
Dynamic viscosity at 20 °C: Non-applicable *
Kinematic viscosity at 20 °C: Non-applicable *
Kinematic viscosity at 40 °C: Non-applicable *
Concentration: Non-applicable *
pH: 9 - 11 to 1 %
Vapour density at 20 °C: Non-applicable *
Partition coefficient n-octanol/water 20 °C: Non-applicable *
Solubility in water at 20 °C: Non-applicable *
Solubility property: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *

Flammability:

Flash Point Non Flammable (>60 °C)
Autoignition temperature: Non-applicable *
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

9.2 Other information

No additional information Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards

SECTION 10: Stability and reactivity

10.1 Reactivity - No hazardous reactions are expected if the following technical instructions storage of chemicals. See section 7.

10.2 Chemical stability - Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous Reactions - Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid –

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable



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10.5 Incompatible materials –

Acids	Water	Combustive materials	Combustible materials	Others
Not applicable	Not applicable	Not applicable	Precaution	Not applicable

10.6 Hazardous decomposition products - See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: Toxicological information

11.1. Information on toxicological effects:

No experimental information is available on the product itself in relation to the toxicological properties. When performing the danger classification on corrosive or irritant effects the recommendations included in section 3.2.5 of Annex VI of Directive 67/548/EC, in paragraphs b) and c) of section 3 of article 6 of Directive 1999/45/EC and in section 3.2.3.3.5. of Annex I of CLP Regulation were taken into account.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A.- Ingestion:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.

B-Inhalation:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.

C- Contact with the skin and the eyes:

Produces serious eye damage after contact

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.

E- Sensitizing effects:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.

F- Specific target organ toxicity (STOT)-time exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.

H-Aspiration hazard:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.

Other information:

Non-applicable



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Specific toxicology information on the substances:

Compound	CAS No.	Portion	Value	Unit
Disodium carbonate, compound with hydrogen peroxide (2:3)	15630-89-4	LD ₅₀ - oral rat	1034-2000	mg/kg
Sodium carbonate	497-19-8	LD ₅₀ - oral rat	4090	mg/kg

SECTION 12: Ecological information

The experimental information related to the ecotoxicological properties of the product itself is not available

12.1 Toxicity

Compound	CAS No.	Portion	Value	Unit
Sodium Carbonate	497-19-8	LD ₅₀ – fish (<i>Gambusia affinis</i>)	740	mg/l/(96h)
		EC ₅₀ - Crustacean (<i>Daphnia magna</i>)	265	mg/l (48 h)
Disodium carbonate, compound with hydrogen peroxide (2:3)	15630-89-4	LD ₅₀ – fish (<i>Pimephales promelas</i>)	70,7	mg/l/(96h)
		EC ₅₀ - Crustacean (<i>Daphnia pulex</i>)	4,9	mg/l (48 h)
Alcohols, C10-16, ethoxylated	68002-97-1	LD ₅₀ – fish	0,1 - 1	mg/l/(96h)
		EC ₅₀ - Crustacean	0,1 - 1	mg/l
		EC ₅₀ - Algi	0,1 - 1	mg/l
Silicic acid, sodium salt (1.6 < MR < 2.6)	1344-09-8	LD ₅₀	260	mg/l/(96h)
		EC ₅₀	750	mg/l (48 h)
		EC ₅₀	345	mg/l (72 h)

12.2. Persistence and degradability - The surfactants contained in the mixture are consistent 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 - Not available

12.4. Mobility in soil - Not available

12.5. Results of PBT and vPvB - Not available

12.6. Other adverse effects - Not described

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

Code	Description	Waste class (Directive 2008/98/EC)
20 01 29*	Detergents containing dangerous substances	Dangerous

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2000/532/EC) of the code and in case the container has been in direct contact with the product, it will be processed



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the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) n°1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2000/532/EC: Commission Decision of 3 May 2000

SECTION 14: Transport information

According to the requirements of ADR / RID:

14.1. UN Number - Not applicable

14.2. Proper shipping name - Not applicable

14.3. Class (es) Transport - Not applicable

14.4. Packing group - Not applicable

14.5. Environmental hazards - No

14.6. Special precautions for user - Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code - Not applicable

SECTION 15: Regulatory information

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

- ⤴ REGULATION (EC) NO 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency
- ⤴ Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
- ⤴ The European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)
- ⤴ REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents
- ⤴ The Act of 25 February 2011. on chemical substances and mixtures thereof. (Dz.U. 2011, nr 63, poz. 322.), as amended
- ⤴ COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- ⤴ DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives
- ⤴ COMMISSION DECISION of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council
- ⤴ COMMISSION DIRECTIVE 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and



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safety of workers from the risks related to chemical agents at work

15.2 Chemical safety assessment
not applicable

SECTION 16: Other information

H phrases:

- 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

Abbreviations and acronyms:

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DEL = Derived effect levels
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PEC = Predicted effect concentrations
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- ICAO: International Civil Aviation Organisation
- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent

Above information are elaborated in base of present accessible data characterizing product, experience and knowledge of the producer. They are not a part of product quality description not even a promise for specific characteristics. They should be treated as help for safe storing, using and transporting of product. However the worker is not without responsibility to. He should correctly use above information and comply with all law standards valid in this field.