



**RHIMA Pro Wash Solid Plex - 40000043**

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

**1.1. Product identifier** Pro Wash Solid Plex - 40000043

UFI: ADC1-D1EH-800V-NHR0

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

**Use of the substance/mixture**

Automatic dishwashing detergents – professional or industrial use

**1.3. Details of the supplier of the safety data sheet**

RHIMA Nederland BV  
Energieweg 4 - 8  
NL-3762 ET Soest  
Tel.: +31 (0)35 609 8181 (during office hours)  
info@rhima.com  
www.rhima.com

**1.4. Emergency telephone number: 112**

National advisory body/Poison Center (NVIC): +31 (0) 88 755 8000  
(Only intended for professional care providers at acute poisoning)

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Regulation (EC) No 1272/2008**

Met. Corr. 1; H290  
Skin Corr. 1; H314  
Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

**2.2. Label elements**

**Regulation (EC) No 1272/2008**

**Hazard components for labelling**

sodium hydroxide; caustic soda  
disodium metasilicate

**Signal word:** Danger

**Pictograms:**



**Hazard statements**

H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.

**Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P264 Wash hands thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P501 Dispose of waste according to applicable legislation.



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**2.3. Other hazards**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

**Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
1310-73-2	sodium hydroxide; caustic soda			40 - < 45 %
	215-185-5	011-002-00-6		
	Met. Corr. 1, Skin Corr. 1A; H290 H314			
497-19-8	sodium carbonate			5 - < 10 %
	207-838-8	011-005-00-2	01-2119485498-19	
	Eye Irrit. 2; H319			
6834-92-0	disodium metasilicate			5 - < 10 %
	229-912-9	014-010-00-8	01-2119449811-37	
	Met. Corr. 1, Skin Corr. 1B, Eye Dam. 1, STOT SE 3; H290 H314 H318 H335			

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

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
1310-73-2	215-185-5	sodium hydroxide; caustic soda	40 - < 45 %
	Skin Corr. 1A; H314: >= 5 - 100 Skin Corr. 1B; H314: >= 2 - < 5 Skin Irrit. 2; H315: >= 0,5 - < 2 Eye Irrit. 2; H319: >= 0,5 - < 2		
497-19-8	207-838-8	sodium carbonate	5 - < 10 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = 2800 mg/kg		
6834-92-0	229-912-9	disodium metasilicate	5 - < 10 %
	dermal: LD50 = > 5000 mg/kg		

**Labelling for contents according to Regulation (EC) No 648/2004**

5 % - < 15 % polycarboxylates, < 5 % phosphonates.

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

When in doubt or if symptoms are observed, get medical advice.

**After inhalation**

Provide fresh air. If experiencing respiratory symptoms: Call a doctor.

**After contact with skin**

Wash with plenty of water. Take off contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.

**After contact with eyes**

Do not subject to friction. In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing.

**After ingestion**

Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. If accidentally swallowed rinse the



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mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

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

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

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

Treat symptomatically.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

### **5.2. Special hazards arising from the substance or mixture**

Non-flammable.

In case of fire may be liberated: Gases/vapours, corrosive, Pyrolysis products, toxic.

### **5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus. Full protection suit

#### **Additional information**

Knock down dust with water spray jet. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

#### **General advice**

Avoid dust formation. Do not breathe dust. Avoid contact with skin, eyes and clothes.

#### **For non-emergency personnel**

Provide adequate ventilation. Remove persons to safety. Wear personal protection equipment.

#### **For emergency responders**

Wear personal protection equipment (refer to section 8).

### **6.2. Environmental precautions**

Avoid release to the environment.

### **6.3. Methods and material for containment and cleaning up**

#### **For containment**

Avoid dust formation. Stop leak if safe to do so.

#### **For cleaning up**

Take up mechanically. Take up dust-free and set down dust-free. Treat the recovered material as prescribed in the section on waste disposal.

#### **Other information**

Do not subject to friction. Clean contaminated articles and floor according to the environmental legislation.

### **6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

#### **Advice on safe handling**

Provide adequate ventilation. Avoid dust formation. Do not breathe dust. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.



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**Advice on protection against fire and explosion**

Usual measures for fire prevention.

**Advice on general occupational hygiene**

Take off contaminated clothing. Draw up and observe skin protection programme. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

**7.2. Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep only in the original container. Store in a dry place.

May be corrosive to metals.

**Hints on joint storage**

Do not store together with: Acids, Oxidising agent, Metal, base.

Keep away from food, drink and animal feedingstuffs.

**Further information on storage conditions**

Protect against: moisture.

**7.3. Specific end use(s)**

Automatic dishwashing detergents – professional or industrial use

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Occupational exposure limits**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
-	Dusts non-specific, respirable	-	4		TWA (8 h)	
-	Dusts non-specific, total inhalable	-	10		TWA (8 h)	
-	Silica, amorphous, total inhalable dust	-	6		TWA (8 h)	
1310-73-2	Sodium hydroxide	-	2		STEL (15 min)	

**DNEL/DMEL values**

CAS No	Substance	Exposure route	Effect	Value
1310-73-2	sodium hydroxide; caustic soda			
Worker DNEL, acute		dermal	local	< 2 %
Worker DNEL, long-term		inhalation	local	1 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	local	1 mg/m <sup>3</sup>
Consumer DNEL, acute		inhalation	local	2 mg/m <sup>3</sup>
497-19-8	sodium carbonate			
Worker DNEL, long-term		inhalation	local	10 mg/m <sup>3</sup>
Consumer DNEL, acute		inhalation	local	10 mg/m <sup>3</sup>

**8.2. Exposure controls**



**Appropriate engineering controls**

Provide adequate ventilation as well as local exhaust at critical locations.

**Individual protection measures, such as personal protective equipment**



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**Eye/face protection**

Use eye protection according to EN 166.

**Hand protection**

Wear suitable gloves tested to EN374.

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**

Respiratory protection necessary at: dust formation, insufficient ventilation, exceeding exposure limit values.

**Thermal hazards**

No information available.

**Environmental exposure controls**

Avoid release to the environment.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state:	solid
Colour:	white
Odour:	characteristic
Odour threshold:	not determined
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	not determined
Flammability:	non-flammable.
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	not applicable
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH-Value:	14 (100 g/l)
Viscosity / kinematic:	not determined
Water solubility:	very soluble
Solubility in other solvents	not determined
Partition coefficient n-octanol/water:	not determined
Vapour pressure:	not determined
Density:	not determined
Relative vapour density:	not determined
Particle characteristics:	not determined

**9.2. Other information**

No information available.

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

Corrosive to metals.



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**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

Exothermic reaction with: Acid, Metal, base. Formation of: Hydrogen.

**10.4. Conditions to avoid**

moisture.

**10.5. Incompatible materials**

Acids, Oxidising agent, Metal, base.

**10.6. Hazardous decomposition products**

In case of fire may be liberated: Gases/vapours, corrosive, Pyrolysis products, toxic.

**SECTION 11: Toxicological information**

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

**Acute toxicity**

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

**ATEmix calculated**

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name					
	Exposure route	Dose	Species	Source	Method	
497-19-8	sodium carbonate					
	oral	LD50 mg/kg	2800	Rat	Pre-supplier/manufact urer	
	dermal	LD50 mg/kg	> 2000	Rabbit	Pre-supplier/manufact urer	
6834-92-0	disodium metasilicate					
	dermal	LD50 mg/kg	> 5000	Rat	Pre-supplier/manufact urer	

**Irritation and corrosivity**

Causes severe skin burns and eye damage. (On basis of test data)

Causes serious eye damage. (On basis of test data)

**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.

**Information on likely routes of exposure**

Inhalation, oral, Skin contact, Eye contact.

**11.2. Information on other hazards**

**Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.



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**SECTION 12: Ecological information**

**12.1. Toxicity**

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

The product is not: Ecotoxic.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
497-19-8	sodium carbonate					
	Acute fish toxicity	LC50 300 mg/l	96 h	Lepomis macrochirus (Bluegill)	Pre-supplier/manu facturer	
	Acute crustacea toxicity	EC50 200 - 227 mg/l	48 h	Ceriodaphnia spec	Pre-supplier/manu facturer	
6834-92-0	disodium metasilicate					
	Acute fish toxicity	LC50 210 mg/l	96 h	Danio rerio (zebrafish)	Pre-supplier/manu facturer	
	Acute algae toxicity	ErC50 270 mg/l	72 h	Scenedesmus subspicatus	Pre-supplier/manu facturer	
	Acute crustacea toxicity	EC50 1700 mg/l	48 h	Daphnia magna (Big water flea)	Pre-supplier/manu facturer	

**12.2. Persistence and degradability**

The product has not been tested. (The methods for determining the biological degradability are not applicable to inorganic substances.)

**12.3. Bioaccumulative potential**

The product has not been tested.

**12.4. Mobility in soil**

The product has not been tested.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

No information available.

**Further information**

Avoid release to the environment.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal recommendations**

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

**Contaminated packaging**

Wash with plenty of water. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

**14.1. UN number or ID number:** UN 3262



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**14.2. UN proper shipping name:** CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (sodium hydroxide; caustic soda, disodium metasilicate)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8



Classification code: C6  
 Special Provisions: 274  
 Limited quantity: 1 kg  
 Excepted quantity: E2  
 Transport category: 2  
 Hazard No: 80  
 Tunnel restriction code: E

**Inland waterways transport (ADN)**

**14.1. UN number or ID number:** UN 3262  
**14.2. UN proper shipping name:** CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (sodium hydroxide; caustic soda, disodium metasilicate)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8



Classification code: C6  
 Special Provisions: 274  
 Limited quantity: 1 kg  
 Excepted quantity: E2

**Marine transport (IMDG)**

**14.1. UN number or ID number:** UN 3262  
**14.2. UN proper shipping name:** CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide; caustic soda, Disodium metasilicate)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8



Marine pollutant: -  
 Special Provisions: 274  
 Limited quantity: 1 kg  
 Excepted quantity: E2  
 EmS: F-A, S-B  
 Segregation group: 18 - alkalis

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number or ID number:** UN 3262  
**14.2. UN proper shipping name:** CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide; caustic soda, Disodium metasilicate)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8





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Special Provisions:	A3 A803	
Limited quantity Passenger:	5 kg	
Passenger LQ:	Y844	
Excepted quantity:	E2	
IATA-packing instructions - Passenger:		859
IATA-max. quantity - Passenger:		15 kg
IATA-packing instructions - Cargo:		863
IATA-max. quantity - Cargo:		50 kg

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

Warning: corrosive.

**14.7. Maritime transport in bulk according to IMO instruments**

not applicable

**SECTION 15: Regulatory information**

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

**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 75

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

**Additional information**

Regulation (EC) No. 648/2004 [Detergents regulation].

**National regulatory information**

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

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

**Additional information**

Observe in addition any national regulations!

**15.2. Chemical safety assessment**

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



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**SECTION 16: Other information**

**Abbreviations and acronyms**

Met. Corr: Substance or mixture corrosive to metals  
Skin Corr: Skin corrosion  
Eye Dam: Eye damage  
Eye Irrit: Eye irritation  
STOT SE: Specific target organ toxicity - single exposure  
CLP: Classification, labelling and Packaging  
REACH: Registration, Evaluation and Authorization of Chemicals  
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals  
UN: United Nations  
CAS: Chemical Abstracts Service  
M-Factor: Multiplication Factor  
DNEL: Derived No Effect Level  
DMEL: Derived Minimal Effect Level  
PNEC: Predicted No Effect Concentration  
ATE: Acute toxicity estimate  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%  
LL50: Lethal loading, 50%  
EL50: Effect loading, 50%  
EC50: Effective Concentration 50%  
ErC50: Effective Concentration 50%, growth rate  
NOEC: No Observed Effect Concentration  
BCF: Bio-concentration factor  
PBT: persistent, bioaccumulative, toxic  
vPvB: very persistent, very bioaccumulative  
ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Regulations concerning the international carriage of dangerous goods by rail  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)  
IMDG: International Maritime Code for Dangerous Goods  
EmS: Emergency Schedules  
MFAG: Medical First Aid Guide  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organization  
TI: Technical Instructions  
DGR: Dangerous Goods Regulations  
MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
IBC: Intermediate Bulk Container  
VOC: Volatile Organic Compounds  
EG or EC: European Community  
IE: Industrial Emissions  
SVHC: Substance of Very High Concern

**Key literature references and sources for data**

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations). (v.1.2, 2013)



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

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data
Skin Corr. 1; H314	On basis of test data
Eye Dam. 1; H318	On basis of test data

**Relevant H and EUH statements (number and full text)**

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*