

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ECO PLUS

Print date: 04.03.2022

Revision date: 04.03.2022

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

1.1. Product identifier

ECO PLUS

UFI: 9DTK-XAD3-E5GV-NEYA

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

1.3. Details of the supplier of the safety data sheet

Company name:	ARCORA International GmbH	
Street:	Marsstraße 9	
Place:	D-85609 Aschheim	
Telephone:	+49 (0)89 / 14 33 29 3-0	Telefax: +49 (0)89 / 14 33 29 3-29
e-mail:	info@arcora.de	

1.4. Emergency telephone number: Giftnotruf der Charité - Universitätsmedizin Berlin -24H- Tel.: 030 30686700

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Skin corrosion/irritation: Skin Corr. 1

Serious eye damage/eye irritation: Eye Dam. 1

Hazardous to the aquatic environment: Aquatic Acute 1

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Causes severe skin burns and eye damage.

Causes serious eye damage.

Very toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

Kaliumhydroxid (vgl. Ätzkali)

Natriummetasilikat Pentahydrat

Natriumhypochloritlösung

Signal word: Danger

Pictograms:



Hazard statements

H314 Causes severe skin burns and eye damage.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash mit Wasser thoroughly after handling.

P273 Avoid release to the environment.

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P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P363	Wash contaminated clothing before reuse.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310	Immediately call a POISON CENTER/doctor.
P321	Specific treatment (see Hinweis on this label).
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/doctor.
P391	Collect spillage.
P405	Store locked up.
P501	Dispose of contents/container to gemäß behördlichen Anforderungen der Entsorgung.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
1310-58-3	Kaliumhydroxid (vgl. Ätzkali)			5 - < 10 %
	215-181-3		01-2119487136-33	
	Met. Corr. 1, Acute Tox. 4, Skin Corr. 1A; H290 H302 H314			
10213-79-3	Natriummetasilikat Pentahydrat			1 - < 5 %
	229-912-9			
	Skin Corr. 1, STOT SE 3; H314 H335			
37971-36-1	2-Phosphonobutan-1,2,4-tricarbonsäure			1 - < 5 %
	Met. Corr. 1, Eye Irrit. 2; H290 H319			
7681-52-9	Natriumhypochloritlösung			1 - < 5 %
	231-668-3	017-011-00-1		
	Skin Corr. 1B, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1; H314 H318 H400 H410 EUH031			

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

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Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
1310-58-3	215-181-3	Kaliumhydroxid (vgl. Ätzkali)	5 - < 10 %
		oral: LD50 = 273 mg/kg	
10213-79-3	229-912-9	Natriummetasilikat Pentahydrat	1 - < 5 %
		oral: LD50 = 847 mg/kg	
37971-36-1		2-Phosphonobutan-1,2,4-tricarbonsäure	1 - < 5 %
		inhalation: Data lacking (gases); dermal: LD50 = >2.000 mg/kg; oral: LD50 = >2.000 mg/kg	
7681-52-9	231-668-3	Natriumhypochloritlösung	1 - < 5 %
		M acute; H400: M=10 M chron.; H410: M=1 EUH; EUH031: >= 5 - 100	

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

< 5 % phosphonates.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.

After inhalation

Provide fresh air. Medical treatment necessary.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

After contact with eyes

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.

After ingestion

Rinse mouth immediately and drink 1 glass of water. Do NOT induce vomiting. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk.

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

No information available.

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.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.

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Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

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

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. 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 locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations.

Hints on joint storage

No special measures are necessary.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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DNEL/DMEL values

CAS No	Name of agent			
DNEL type		Exposure route	Effect	Value
37971-36-1	2-Phosphonobutan-1,2,4-tricarbonsäure			
Consumer DNEL, acute		oral	systemic	65 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	2,1 mg/kg bw/day
Worker DNEL, acute		dermal	systemic	80 mg/kg bw/day
Worker DNEL, long-term		dermal	systemic	4,2 mg/kg bw/day
Consumer DNEL, acute		dermal	systemic	40 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	21 mg/kg bw/day
Worker DNEL, acute		inhalation	systemic	158 mg/m ³
Worker DNEL, long-term		inhalation	systemic	15 mg/m ³
Consumer DNEL, acute		inhalation	systemic	3,7 mg/m ³
Consumer DNEL, long-term		inhalation	systemic	3,7 mg/m ³

PNEC values

CAS No	Name of agent	
Environmental compartment		Value
37971-36-1	2-Phosphonobutan-1,2,4-tricarbonsäure	
Freshwater		3,33 mg/l
Marine water		0,33 mg/l
Freshwater sediment		1,47 mg/kg
Micro-organisms in sewage treatment plants (STP)		50,4 mg/l
Soil		0,491 mg/kg

Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls



Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles.

Hand protection

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.

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Skin protection

Use of protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	transparent
Odour:	characteristic

Changes in the physical state

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	99,97 °C
Flash point:	not determined

Flammability

Solid/liquid:	not applicable
Gas:	not applicable

Explosive properties

The product is not: Explosive.

Lower explosion limits:	not determined
Upper explosion limits:	not determined

Self-ignition temperature

Solid:	not applicable
Gas:	not applicable

Decomposition temperature:	not determined
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Oxidizing properties

Not oxidising.

pH-Value:	>13
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Water solubility:	easily soluble
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Solubility in other solvents

not determined

Partition coefficient n-octanol/water:	not determined
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Vapour pressure: (at 20 °C)	23,37 hPa
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Vapour pressure: (at 50 °C)	123,3 hPa
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Density:	1,2 g/cm ³
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Relative vapour density:	not determined
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9.2. Other information

Other safety characteristics

Solid content:	not determined
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Evaporation rate:	not determined
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Further Information

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SECTION 10: Stability and reactivity

10.1. Reactivity

Possibility of hazardous reactions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Exothermic reaction with: Acid, Peroxides, Oxidizing agent.

10.4. Conditions to avoid

none

10.5. Incompatible materials

Keep away from: Acid, Oxidizing agent, Peroxides.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

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

Acute toxicity

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
1310-58-3	Kaliumhydroxid (vgl. Ätzkali)				
	oral	LD50 273 mg/kg	Rat	RTECS	
10213-79-3	Natriummetasilikat Pentahydrat				
	oral	LD50 847 mg/kg	Ratte	TOXNET	
37971-36-1	2-Phosphonobutan-1,2,4-tricarbonsäure				
	oral	LD50 >2.000 mg/kg	Ratte		
	dermal	LD50 >2.000 mg/kg	Ratte		
	inhalation	Data lacking			

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic life with long lasting effects.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
1310-58-3	Kaliumhydroxid (vgl. Ätzkali)					
	Acute fish toxicity	LC50 80 mg/l	96 h	Gambusia affinis	IUCLID	
10213-79-3	Natriummetasilikat Pentahydrat					
	Acute fish toxicity	LC50 210 mg/l	96 h	Zebrabärbling		
37971-36-1	2-Phosphonobutan-1,2,4-tricarbonsäure					
	Acute algae toxicity	ErC50 860 mg/l		Algen		
	Acute crustacea toxicity	EC50 3.440 mg/l	48 h	Oncorhynchus mykiss		

12.2. Persistence and degradability

The product has not been tested.

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 product has not been tested.

12.7. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

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

Contaminated packaging

Non-contaminated packages may 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 1719

14.2. UN proper shipping name:

CAUSTIC ALKALI LIQUID, N.O.S.

14.3. Transport hazard class(es):

8

14.4. Packing group:

III

Hazard label:

8



Classification code:

C5

Special Provisions:

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Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	80
Tunnel restriction code:	E

14.6. Special precautions for user

Warning: strongly 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 3

Information according to 2012/18/EU
(SEVESO III):

E1 Hazardous to the Aquatic Environment

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):

2 - obviously hazardous to water

15.2. Chemical safety assessment

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

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1.

Abbreviations and acronyms

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

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

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(European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Regulations concerning the international carriage of dangerous goods by rail

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container

VOC: Volatile Organic Compounds

SVHC: Substance of Very High Concern

For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

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

Classification	Classification procedure
Skin Corr. 1; H314	On basis of test data
Eye Dam. 1; H318	On basis of test data
Aquatic Acute 1; H400	Calculation method
Aquatic Chronic 2; H411	Calculation method

Relevant H and EUH statements (number and full text)

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
EUH031	Contact with acids liberates toxic gas.

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 hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)