

SECTION 1. Identification of the substance/mixture and of the company/enterprise

1.1. Product identifier

Product name : DOMAL

Product code: refer to sales department

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

Alkaline cleaning

Sectors of use:

Industrial Manufacturing[SU3], Public domain (administration, education, entertainment, services, craftsmen)[SU22]

Product category:

Washing and Cleaning Products (including solvent based products)

Process categories:

Use in closed, continuous process with occasional controlled exposure[PROC2], Use in batch and other process (synthesis) where opportunity for exposure arises[PROC4], Transfer of substance or mixture (charging and discharging) at nondedicated facilities[PROC8A], Transfer of substance or mixture (charging and discharging) at dedicated facilities[PROC8B], Treatment of articles by dipping and pouring[PROC13], Application with rollers or brushes [PROC10]

Not recommended uses

Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

AEB SpA - Via Vittorio Arici 104 S.Polo - 25134 Brescia (BS) Italy

Tel. +39.030.2307.1 Fax +39.030.2307281

E-mail: info@aeb-group.com - Internet: www.aeb-group.com

E-mail tecnico competente/technical dept.: sds@aeb-group.com

AEB USA

111 N Cluff Avenue

Lodi CA 95240 (USA)

Tel: +1 2096258139 Fax: +1 2092248953

Email: info@aebusa.com - Internet: www.aeb-group.com

AEB AFRICA (PTY) LTD

18 Track Crescent, Cor. Station Road

Montague Gardens 7441

Cape Town (South Africa)

Tel.: +27 215512700 - Fax: +27 (0) 215511919

Email: info@aeb.co.za - Internet: www.aeb-group.com

AEB OCEANIA PTY LTD

178A Wakaden Street

Griffith NSW 2680

T: 1300 704 971

Email: aebocania@aeb-group.com - Internet: www.aeb-group.com

Produced by
AEB SpA
Via Vittorio Arici 104 S. Polo
25134 Brescia

1.4. Emergency telephone number

AEB SpA
Centralino/Switchboard: +39.030.2307.1 - (h 8.30-12.00 13.30-18.00 GMT +1; Lingua/Language: Italiano, English)

AEB BIOCHEMICAL USA
Switchboard: +1 2096258139 (GMT -8; Language: English)

AEB AFRICA (PTY) LTD
Switchboard: +27 215512700 (GMT +1; Language: English, Afrikaans)

AEB OCEANIA PTY LTD
Switchboard: +61 1300 704 971 (GMT +9; Language: English)

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:
GHS05

Hazard Class and Category Code(s):
Met. Corr. 1, Skin Corr. 1, Eye Dam. 1

Hazard statement Code(s):
H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.

The product can be corrosive to metals
Corrosive product: causes severe skin burns and eye damage.
If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):
GHS05 - Danger

Hazard statement Code(s):
H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.



Supplemental Hazard statement Code(s):

EUH208 - Contains preservatives: Benzisothiazolinone. May produce an allergic reaction.

Precautionary statements:

Prevention

P260 - Do not breathe vapours/spray.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response

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.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

Contains:

Potassium hydroxide, disodium metasilicate

Contains (Reg.EC 648/2004):

< 5% non-ionic surfactants, phosphates, anionic surfactants, EDTA and salts thereof

Preservatives: Benzisothiazolinone

2.3. Other hazards

The substance / mixture does NOT contain substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

The use of this chemical agent involves the obligation of "risk assessment" by the employer in accordance with the provisions of Dlgs n. 81. April 9, 2008. Workers exposed to this chemical agent should not be subject to health surveillance if the results of the risk assessment show that, depending on the type and quantity of dangerous chemical agent and method and frequency of exposure to the agent, there is only a "moderate Risk" for the health and safety of workers and that the measures laid down in the Decree are sufficient to reduce the risk.

For professional use only

SECTION 3. Composition/information on ingredients

3.1 Substances

Irrilevant

3.2 Mixtures

Refer to paragraph 16 for full text of hazard statements

Substance	Concentration	Classification	Index	CAS	EINECS	REACH
Disodium metasilicate	$\geq 3 \leq 5\%$	Met. Corr. 1, H290; Skin Corr. 1B, H314; Eye Dam. 1, H318; STOT SE 3, H335	014-010-00-8	6834-92-0	229-912-9	01-2119449 811-37-XXX X
Tetrapotassium pyrophosphate	$> 1 \leq 5\%$	Eye Irrit. 2, H319		7320-34-5	230-785-7	01-2119489 369-18-XXX X

Substance	Concentration	Classification	Index	CAS	EINECS	REACH
Potassium hydroxide	> 1 < 2%	Met. Corr. 1, H290; Acute Tox. 4, H302; Skin Corr. 1A, H314	019-002-00-8	1310-58-3	215-181-3	01-2119487 136-33-XXX X
Sodium etasulfate	> 1 <= 5%	Skin Irrit. 2, H315; Eye Dam. 1, H318		126-92-1	204-812-8	01-2119971 586-23-XXX X
Sodium hydroxide substance for which there are Community workplace exposure limits	<= 0,1%	Met. Corr. 1, H290; Skin Corr. 1A, H314; Eye Dam. 1, H318	011-002-00-6	1310-73-2	215-185-5	01-2119457 892-27-XXX X
Benzisothiazolinone	>= 0,005 <= 0,1%	Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Dam. 1, H318; Aquatic Acute 1, H400 Acute toxicity M-factor = 10	613-088-00-6	2634-33-5	220-120-9	01-2120761 540-60-XXX X

SECTION 4. First aid measures

4.1. Description of first aid measures

Inhalation:

Ventilate the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.

Direct contact with skin (of the pure product):

Take off immediately contaminated clothing.
In case of contact with skin, wash immediately with water.
Immediately consult a physician.

Direct contact with eyes (of the pure product):

Wash immediately and thoroughly with running water, keeping eyelids open for at least 10 minutes, then protect your eyes with a dry sterile gauze. Seek medical advice immediately.
Do not use eye drops or ointments of any kind before the examination or advice from an oculist.

Ingestion:

Drink water with egg white; do not give bicarbonate.
Absolutely do not induce vomiting or emesis. Seek medical advice immediately.

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

Swallowing may cause chemical burns in the mouth and throat. In contact with skin it may cause burns. Contact with eyes causes very severe irritation, including redness and tear.

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

Immediately call a POISON CENTER or a doctor.

SECTION 5. Firefighting measures

5.1. Extinguishing media

Suggested extinguishing media:

Water spray, CO₂, foam, dry chemical, depending on the materials involved in the fire.

Extinguishing media to avoid:

Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

5.2. Special hazards arising from the substance or mixture

No data available.

5.3. Advice for firefighters

Use protection for the breathing apparatus

Safety helmet and full protective clothing.

The water spray can be used to protect the people involved in the extinction.

You may also use self-contained breathing apparatus, especially when working in confined and poorly ventilated areas and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)

Keep containers cool with water spray

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

Leave the area surrounding the spill or release. Do not smoke

Wear mask, gloves and protective clothing.

6.1.2 For emergency responders:

Eliminate all unguarded flames and possible sources of ignition. No smoking.

Provide a sufficient ventilation.

Evacuate the danger area and, in case, consult an expert.

6.2. Environmental precautions

Contain spills with earth or sand.

If the product has entered a watercourse, sewers or has contaminated soil or vegetation, notify the authorities.

Dispose of the waste material in compliance with the regulations

6.3. Methods and material for containment and cleaning up

6.3.1 Containment:

Rapidly recover the product, wear a mask and protective clothing (for specifications refer to section 8.2. SDS)

Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert material or suck it.

Prevent it from entering the sewer system.

6.3.2 Cleaning up:

After wiping up, wash with water the area and materials involved

6.3.3 Other information:

None in particular.

6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Avoid contact and inhalation of vapors
Wear protective gloves/protective clothing/eye protection/face protection.
In residential areas do not use on large surfaces.
At work do not eat or drink.
See also paragraph 8 below.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabelled containers.
Keep containers upright and safe by avoiding the possibility of falls or collisions.
Store in a cool and dry place, away from heat sources and direct exposure to sunlight.

7.3. Specific end use(s)

Industrial Manufacturing:

Handle with extreme caution.

Store in a well ventilated place away from heat sources. (7-30°C)

Public domain (administration, education, entertainment, services, craftsmen):

Handle with care. Store in a ventilated area and away from heat, keep the container tightly closed.(7-30°C)

See the annex exposure scenario.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

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Related to contained substances:

Potassium hydroxide:

TLV :2 mg/m3 (valore ceiling) (ACGIH 2000).

Sodium hydroxide:

Limit value – Eight hours

(ppm)/(mg/m3)

Australia: x/x

Austria: x/2 inhalable aerosol

Belgium: x/2

Canada – Ontario: x/x

Canada – Québec: x/x

Denmark: x/2

Finland: x/x

France: x/2

Hungary: x/2

Ireland: x/x

Latvia: x/0,5

New Zealand: x/x
People's Republic of China: x/x
Poland: x/0,5
Singapore: x/x
South Korea: x/x
Spain: x/2
Sweden: x/1
Switzerland: x/2 inhalable aerosol
USA – NIOSH: x/x
USA – OSHA: x/2
United Kingdom: x/x

Limit Value – Short Term

(ppm)/(mg/m³)

Australia: x/2(1)

Austria: x/4 inhalable aerosol

Belgium: x/x

Canada - Ontario: x/2(1)

Canada – Québec: x/2(1)

Denmark: x/2

Finland: x/2(1)

France: x/x

Hungary: x/2

Ireland: x/2(1)

Latvia: x/x

New Zealand: x/2(1)

People's Republic of China: x/2(1)

Poland: x/1

Singapore: x/2

South Korea: x/2(1)

Spain: x/x

Sweden: x/2(1)(2)

Switzerland: x/2 inhalable aerosol

USA – NIOSH: x/2(1)

USA – OSHA: x/x

United Kingdom: x/2

Remarks:

Australia: (1) Ceiling limit value

Canada – Ontario: (1) Ceiling limit value

Canada – Québec: (1) Ceiling limit value

Finland: (1) Ceiling limit value

Ireland: (1) 15 minutes reference period

New Zealand: (1) Ceiling limit value

People's Republic of China: (1) Ceiling limit value

South Korea: (1) Ceiling limit value

Sweden: (1) Inhalable dust (2) Ceiling limit value

USA – NIOSH: (1) Ceiling limit value (15 min)

Tipo OEL: ACGIH -- Nazione: ITALY - STEL: C 2.0 mg/m³

Tipo OEL: ACGIH - STEL: C2 mg/m³ - Note: URT, eye, and skin irr

- Substance: Disodium metasilicate

DNEL

Systemic effects Long term Workers inhalation = 6,22 (mg/m³)

Systemic effects Long term Workers dermal = 1,49 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 1,55 (mg/m³)

Systemic effects Long term Consumers dermal = 0,74 (mg/kg bw/day)

Systemic effects Long term Consumers oral = 0,74 (mg/kg bw/day)

PNEC

Sweet water = 7,5 (mg/l)

Sea water = 1 (mg/l)

intermittent emissions = 7,5 (mg/l)

STP = 1000 (mg/l)

- Substance: Tetrapotassium pyrophosphate

DNEL

Systemic effects Long term Workers inhalation = 44,08 (mg/m³)

Systemic effects Long term Consumers inhalation = 10,87 (mg/m³)

Local effects Long term Workers inhalation = 2,79

PNEC

Sweet water = 0,05 (mg/l)

Sea water = 0,005 (mg/l)

intermittent emissions = 0,5 (mg/l)

STP = 50 (mg/l)

- Substance: Potassium hydroxide

DNEL

Local effects Long term Workers inhalation = 1

Local effects Long term Consumers inhalation = 1 (mg/m³)

- Substance:

Sodium etasulfate

DNEL

Systemic effects Long term Workers inhalation = 285 (mg/m³)

Systemic effects Long term Workers dermal = 4060 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 85 (mg/m³)

Systemic effects Long term Consumers dermal = 2440 (mg/kg bw/day)

Systemic effects Long term Consumers oral = 24 (mg/kg bw/day)

PNEC

Sweet water = 0,1357 (mg/l)

sediment Sweet water = 1,5 (mg/kg/sediment)

Sea water = 0,01357 (mg/l)

sediment Sea water = 0,15 (mg/kg/sediment)

intermittent emissions = 4,83 (mg/l)

STP = 1,35 (mg/l)

ground = 0,22 (mg/kg ground)

- Substance: Sodium hydroxide

DNEL

Systemic effects Short term Workers inhalation = 1 (mg/m³)

Systemic effects Short term Consumers inhalation = 1 (mg/m³)

Local effects Short term Workers inhalation = 1 (mg/m³)

Local effects Short term Consumers inhalation = 1 (mg/m³)

- Substance: Benzisothiazolinone

DNEL

Systemic effects Long term Workers inhalation = 6,81 (mg/m³)

Systemic effects Long term Workers dermal = 0,966 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 1,2 (mg/m³)

Systemic effects Long term Consumers dermal = 0,345 (mg/kg bw/day)

PNEC

Sweet water = 0,011 (mg/l)

sediment Sweet water = 0,0499 (mg/kg/sediment)

Sea water = 0,001 (mg/l)
sediment Sea water = 0,00499 (mg/kg/sediment)
STP = 1,03 (mg/l)
ground = 10 (mg/kg ground)

8.2. Exposure controls



Appropriate engineering controls:

Industrial Manufacturing:

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

Public domain (administration, education, entertainment, services, craftsmen):

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

8.2.2 Individual protection measures:

(a) Eye / face protection

When handling the pure product use safety glasses (EN 166).

(b) Skin protection

(i) Hand protection

When handling the pure product use chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3) according to the instructions of the employer

(ii) Other

During working operation wear protective clothing (generic workwear / antacid, safety shoes or other protective equipment) according to the instructions of the employer

(c) Respiratory protection

Not needed for normal use

In case of insufficient ventilation or emergency, use mask with gas filters and inorganic vapors - Grey , Class 3 , B (EN 405) unless otherwise provided by the employer and / or assessments of environmental investigations hygienistic

(d) Thermal hazards

No hazard to report

Environmental exposure controls:

Use according to good working practices and avoid to disperse the product into the environment.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Appearance	clear yellow clear liquid	
Odour	not determined because it is considered not relevant for characterization of the product	

Physical and chemical properties	Value	Determination method
Odour threshold	not determined because it is considered not relevant for characterization of the product	
pH	11,5 ± 0,5 (20°C; sol. 1%)	
Melting point/freezing point	not determined because it is considered not relevant for characterization of the product	
Initial boiling point and boiling range	not determined because it is considered not relevant for characterization of the product	
Flash point	not determined because it is considered not relevant for characterization of the product	
Evaporation rate	not determined because it is considered not relevant for characterization of the product	
Flammability (solid, gas)	not determined because it is considered not relevant for characterization of the product	
Upper/lower flammability or explosive limits	not determined because it is considered not relevant for characterization of the product	
Vapour pressure	not determined because it is considered not relevant for characterization of the product	
Vapour density	not determined because it is considered not relevant for characterization of the product	
Relative density	1,10 ± 0,05 (20°C)	
Solubility	in water	
Water solubility	soluble in all proportions	
Partition coefficient: n-octanol/water	not determined because it is considered not relevant for characterization of the product	
Auto-ignition temperature	not determined because it is considered not relevant for characterization of the product	
Decomposition temperature	not determined because it is considered not relevant for characterization of the product	
Viscosity	not determined because it is considered not relevant for characterization of the product	
Explosive properties	not determined because it is considered not relevant for characterization of the product	
Oxidising properties	not determined because it is considered not relevant for characterization of the product	

9.2. Other information

No data available.

SECTION 10. Stability and reactivity

10.1. Reactivity

base

10.2. Chemical stability

Non-corrosive to all materials it may come into contact with during its use: stainless steel, aluminum, plastic material, nitro-painted surfaces, synthetic glazes, glass, glass.

10.3. Possibility of hazardous reactions

Exothermic reaction with strong acids.

10.4. Conditions to avoid

Nothing to report

10.5. Incompatible materials

It can generate flammable gases in contact with halogenated organic substances, elemental metals.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11. Toxicological information

11.1. Information on toxicological effects

ATE(mix) oral = 18.843,9 mg/kg

ATE(mix) dermal = ∞

ATE(mix) inhal = 1.282,1 mg/l/4 h

(a) acute toxicity: Disodium metasilicate: Ingestion - LD50 rat (mg / kg / 24h bw): 994.7 - 1 530

Skin contact - LC50 rat / rabbit (mg / kg / 24h bw): > 5000

Inhalation - LD50 rat (mg / l / 4h) :> 2.06

Tetrapotassium pyrophosphate: Ingestion-rat LD50 (mg/kg/bw 24h): > 2000

Skin contact-LC50 rat/rabbit (mg/kg/bw 24h): n.a.

Inhalation-rat LD50 (mg/l/4h): n.a.

Potassium hydroxide: Ingestion - LD50 rat (mg / kg / 24h bw): 388

Contact with skin - LC50 rat / rabbit (mg / kg / 24h bw): nd

Inhalation - LD50 rat (mg / l / 4h): nd

Sodium etasulfate: Ingestion - LD50 rat (mg / kg / 24h bw): experimental / calculated data - 2.840 mg / kg (similar to OECD Guideline 401)

Skin contact - LC50 rat / rabbit (mg / kg / 24h bw):> 2.000 mg / kg (OECD - guideline 402). The indications are derived from substances / products of similar composition or structure. Inhalation - LD50 rat (mg / l / 4h): nd

Sodium hydroxide: Ingestion - LD50 rat (mg / kg / 24h bw): nd

Skin contact - LC50 rabbit (mg / kg / 24h bw): 1350

Inhalation - LD50 rat (mg / l / 4h): nd

Benzisothiazolinone: Ingestion - LD50 rat (mg / kg / 24h bw): 670

Skin contact - LC50 rat / rabbit (mg / kg / 24h bw):> 2000

(b) skin corrosion/irritation Corrosive product: causes severe skin burns and eye damage.

Disodium metasilicate: Corrosive

Tetrapotassium pyrophosphate: Non-corrosive

Potassium hydroxide: Corrosive
 Sodium etasulfate: Non-corrosive
 Sodium hydroxide: Corrosive
 Benzisothiazolinone: Corrosive
 Disodium metasilicate: Irritating
 Tetrapotassium pyrophosphate: Non-irritating
 Potassium hydroxide: Irritating
 Sodium etasulfate: Irritating
 Sodium hydroxide: Irritating
 Benzisothiazolinone: Irritating

(c) serious eye damage/irritation: Corrosive product: causes severe skin burns and eye damage. - If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.
 Disodium metasilicate: The material causes chemical burns. It can cause permanent damage if the eye is not irrigated immediately
 Tetrapotassium pyrophosphate: Non-corrosive
 Potassium hydroxide: Corrosive
 Sodium etasulfate: Corrosive
 Sodium hydroxide: Corrosive
 Benzisothiazolinone: Corrosive
 Disodium metasilicate: Irritating
 Tetrapotassium pyrophosphate: Irritating
 Potassium hydroxide: Irritating
 Sodium etasulfate: Irritating
 Sodium hydroxide: Irritating
 Benzisothiazolinone: Irritating

(d) respiratory or skin sensitization: Disodium metasilicate: Non-sensitizing (LLNA)
 Tetrapotassium pyrophosphate: Non-sensitizing
 Potassium hydroxide: Non-sensitizing
 Sodium etasulfate: Non-sensitizing
 Sodium hydroxide: Not sensitizing
 Benzisothiazolinone: Sensitizing

(e) germ cell mutagenicity: Disodium metasilicate: Not mutagenic
 Tetrapotassium pyrophosphate: Non-mutagenic
 Potassium hydroxide: Non-mutagenic
 Sodium etasulfate: Non-mutagenic
 Sodium hydroxide: Not mutagenic
 Benzisothiazolinone: Non-mutagenic

(f) carcinogenicity: Disodium metasilicate: Not carcinogenic
 Tetrapotassium pyrophosphate: Non-carcinogenic
 Potassium hydroxide: Non-carcinogenic
 Sodium etasulfate: Non-carcinogenic
 Sodium hydroxide: Not carcinogenic
 Benzisothiazolinone: Not available

(g) reproductive toxicity: Disodium metasilicate: Effects on fertility: NOAEL (Rat)> 159 mg / kg bw / d. Developmental effects: NOAEL (Mouse)> 260 mg / kg bw / d.
 Tetrapotassium pyrophosphate: Non-toxic for reproduction
 Potassium hydroxide: Non-toxic for reproduction
 Sodium etasulfate: Non-toxic for reproduction
 Sodium hydroxide: Non-toxic for reproduction
 Benzisothiazolinone: Not available

(h) specific target organ toxicity (STOT) single exposure: Disodium metasilicate: Irritates respiratory systems
 Tetrapotassium pyrophosphate: Not available
 Potassium hydroxide: Not available
 Sodium etasulfate: Not available
 Sodium hydroxide: The substance can be absorbed into the body by inhalation of its aerosols and by ingestion.
 Benzisothiazolinone: Not available

(i) specific target organ toxicity (STOT) repeated exposure: Disodium metasilicate: NOAEL oral (rat): 227 - 237 mg / kg bw / day oral
 NOAEL oral (mouse): 260 - 284 mg / kg bw / day oral

LOAEL oral (mouse): 716 - 892 mg / kg bw / day

Tetrapotassium pyrophosphate: Not available

Potassium hydroxide: Not available

Sodium etasulfate: Evaluation of toxicity following repeated administration: the product has not been tested. The indications are derived from substances / products of similar composition or structure. In tests on animals a certain adaptability has been observed following repeated exposure. The absorption of the substance by mouth in high concentrations can damage the organs.

Sodium hydroxide: The substance can be absorbed into the body by inhalation of its aerosols and by ingestion. The symptoms of pulmonary edema often do not manifest themselves before a few hours and are exacerbated by physical exertion. Rest and medical observation are therefore essential

Benzisothiazolinone: Not available

(j) aspiration hazard: Disodium metasilicate: Not available

Tetrapotassium pyrophosphate: Not available

Potassium hydroxide: Not available

Sodium etasulfate: Not available

Sodium hydroxide: Not available

Benzisothiazolinone: Not available

SECTION 12. Ecological information

12.1. Toxicity

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Related to contained substances:

Disodium metasilicate:

Acute toxicity on fish LC50 (96 hours): 210 (Brachydanio rerio) - 2 320 (Gambusia affinis) Acute toxicity on invertebrates: EC50 (48 hours): 1700 mg / l (Daphnia magna)

Acute toxicity on Algae / Cyanobacteria: EC50 (72 h, biomass): 207 mg / L (Scenedesmus subspicatus), EC50 (72 hours, Growth inhibition): 345.4 mg / L

Chronic toxicity - NOEC fish (mg / l): nd

Chronic toxicity - crustaceans NOEC (mg / l): nd

Chronic toxicity NOEC algae (mg / l): nd

Toxicity on microorganisms: EC50 (3 h) 100 mg / L - EC0 (30 min) 1 g / L

C(E)L50 (mg/l) = 1108

Tetrapotassium pyrophosphate:

Acute toxicity-fish LC50 (mg/l/83d): > 100

Acute toxicity-crustacea EC50 (mg/l/48 h): n.a.

Acute algae toxicity ErC50 (mg/l/72-69): n.a.

Potassium hydroxide:

Acute toxicity - LC50 fish (mg / l / 96h): 80

Acute toxicity - crustaceans EC50 (mg / l / 48h): nd

Acute toxicity algae ErC50 (mg / l / 72-96h): nd

Chronic toxicity - NOEC fish (mg / l): nd

Chronic toxicity - crustaceans NOEC (mg / l): nd

Chronic toxicity NOEC algal (mg / l): nd

C(E)L50 (mg/l) = 80

Sodium etasulfate:

Acute toxicity-fish LC50 (mg/l/83d): > 100

Acute toxicity-crustacea EC50 (mg/l/48 h): > 100

Acute algae toxicity ErC50 (mg/l/72-69): > 100

Chronic toxicity-fish NOEC (mg/l): > 1

Chronic toxicity-crustaceans NOEC (mg/l): > 1

Sodium hydroxide:

Acute toxicity - LC50 fish (mg / l / 96h): 45
Acute toxicity - crustaceans EC50 (mg / l / 48h): 40
Acute toxicity algae ErC50 (mg / l / 72-96h): nd
Chronic toxicity - NOEC fish (mg / l): nd
Chronic toxicity - crustaceans NOEC (mg / l): nd
Chronic toxicity NOEC algal (mg / l): nd

Benzisothiazolinone:

Acute toxicity - fish LC50 (mg / l / 96h): 2.18 *Oncorhynchus mykiss* - Method: OECD Test Guideline 203
Acute toxicity - crustaceans EC50 (mg / l / 48h): 2.94 *Daphnia magna* - Method test, Directive 92/69 / EEC.
Acute toxicity ErC50 algae (mg / l / 72-96h): 0.15 *Selenastrum capricornutum* - Type of test: Growth inhibitor
Chronic toxicity - NOEC fish (mg / l 28 die): 0.3 *Oncorhynchus mykiss* - Type of test: Growth inhibitor
Chronic toxicity - crustaceans NOEC (mg / l / 21d): 1.7 *Daphnia magna* - Type of test: Reproduction test - Method: OECD TG 211
Chronic toxicity algae NOEC (mg / l): nd
Toxicity to organisms soil living EC50 (mg / kg / 14d): > 410.6 *Fetid Eisenia* Method: OECD TG 207
Toxicity for living organisms in the soil EC50 (mg / kg / 28d): 263.7 Method: OECD TG 216
Acute toxicity M-factor = 10

Use according to good working practices and avoid to disperse the product into the environment.

12.2. Persistence and degradability

=====

Related to contained substances:

Disodium metasilicate:
Not applicable

Tetrapotassium pyrophosphate:
Not biodegradable

Potassium hydroxide:
Not applicable

Sodium etasulfate:
Readily biodegradable

Sodium hydroxide:
Not applicable

Benzisothiazolinone:
Quickly biodegradable

12.3. Bioaccumulative potential

=====

Related to contained substances:

Disodium metasilicate:
Toxicokinetic data on vertebrates revealed a low potential for bioaccumulation. The soluble ingested silicates are excreted through the urine and to a lesser extent through the faeces. Markedly increased rapid urinary silica excretion was observed when soluble sodium silicates were administered to rats (Benke & Osborn 1979), dogs (King et al. 1933), cats (King & McGeorge 1938) and guinea pigs (Sauer et al 1959). The half-life of urinary silicon excretion after administration of sodium silicate in rats via the gastric cannula was 24 hours (Benke & Osborn 1979).

Tetrapotassium pyrophosphate:

Low

Potassium hydroxide:
Not bioaccumulative

Sodium etasulfate:
Not bioaccumulative

Sodium hydroxide:
Not bioaccumulative

Benzisothiazolinone:
Unlikely bioaccumulation

12.4. Mobility in soil

=====

Related to contained substances:

Disodium metasilicate:

Due to a strong dependence on pH and concentration which leads to a dynamic polymerisation-depolymerisation equilibrium with speciation into a variety of mono-, oligo-, and polymeric anions and amorphous silica, calculations on the distribution in various environmental compartments are not feasible (HERA 2005).

Dissolved silica from commercial soluble silicates is indistinguishable from natural dissolved silica. Of the elemental composition of the earth's crust, SiO₂ represents about 59%. Similar percentages are obtained for many sediments and soils (Jackson 1964 as cited in HERA 2005). Silica is found in European rivers in mean concentrations of 7.5 mg SiO₂/L (Jorgensen et al. 1991). Thus, silica is the second most abundant element on earth. Compounds of silicon and oxygen are ubiquitous in the environment; they are present in inorganic matter, like minerals and soils as well as in organic matter, like plants, animals and man. By weathering of soil, rocks and sediments and by atmospheric deposition, silica is released into surface and ground waters from where it may be removed by precipitation and sedimentation or taken up by living organisms, especially diatoms. Dead sedimenting diatoms also contribute significantly to sediment silica (diatomaceous earth). Silica is found in all natural waters with an average concentration of 10-20 mg SiO₂/L (HERA 2005).

Due to the low vapour pressure, volatilisation is not expected.

Tetrapotassium pyrophosphate:
Poor

Potassium hydroxide:
Not available

Sodium etasulfate:
Possible absorption into the soil solid phase

Sodium hydroxide:
Not applicable

Benzisothiazolinone:
Not available

12.5. Results of PBT and vPvB assessment

The substance / mixture does NOT contain substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

12.6. Other adverse effects

No adverse effects

Regulation (EC) No 2006/907 - 2004/648

The (l) surfactant (s) content (s) in this preparation complies (comply) with (i) the biodegradability criteria as laid down in Regulation CE/648/2004 on detergents. All data are held at the disposal of the competent authorities of Member States and will be provided, at their direct request or at the request of a detergent manufacturer, to those authorities.

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.

Recover if possible. Operate according to local or national regulations

SECTION 14. Transport information

14.1. UN number

ADR/RID/IMDG/ICAO-IATA: 3266

If subject to the following characteristics is ADR exempt:

Combination packagings: per inner packaging 1 L per package 30 Kg

Inner packaging placed in shrink-wrapped or stretch-wrapped trays: per inner packaging 1 L per package 20 Kg



14.2. UN proper shipping name

ADR/RID/IMDG: LIQUIDO INORGANICO CORROSIVO, BASICO, N.A.S. (Idrossido di potassio in miscela)

ADR/RID/IMDG: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium hydroxide in mixture)

ICAO-IATA: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium hydroxide in mixture)

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class : 8

ADR/RID/IMDG/ICAO-IATA: Label : 8

ADR: Tunnel restriction code : E

ADR/RID/IMDG/ICAO-IATA: Limited quantities : 1 L

IMDG - EmS : F-A, S-B

14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: II

14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is not environmentally hazardous

IMDG: Marine polluting agent : No

14.6. Special precautions for user

The transport must be carried out by authorized vehicles for the transport of dangerous goods in accordance with the requirements of the applicable Edition of the agreement A.D.R. and national provisions. The transport must be carried out in the original packaging and in packages that are made from materials resistant to content and not likely to generate with this dangerous reactions. The process of loading and unloading of dangerous goods have received adequate training on the risks presented by prepared and on possible procedures to be taken in the event of emergency situations

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

Transport in bulk is not foreseen

SECTION 15. Regulatory information

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

=====

Related to contained substances:

Tetrapotassium pyrophosphate:

D. Lgs. n. 2/3/1997 52 (classification, packaging and labelling of dangerous substances). Legislative Decree No. 3/14/2003 65 (classification, packaging and labelling of dangerous preparations). Legislative Decree No. 25 2/2/2002 (risks related to chemical agents at work). D.M. 2/26/2004 Work (occupational exposure limits); D.M. 4/3/2007 (implementation of Directive No. 2006/8/EC). Regulation (EC) No 1907/2006 (REACH), Regulation (EC) no 1272/2008 (CLP), Regulation (EC) no 790/2009. Legislative Decree No. 238 September 21, 2005 (Seveso Ter).

Restrictions relating to the product or contained substances (All. XVII Reg. EC 1907/2006): not applicable

Substances in Candidate List (art. 59 Reg. EC 1907/2006): the product does not contain SVHC

Substances subject to authorisation (Ann. XIV Reg. CEC 1907/2006): the product does not contain SVHC

Reg. EC 648/04: see 2.2

Reg. (EU) n. 1169/2011: see 2.2

REGULATION (EU) No 1357/2014 - waste:

HP8 - Corrosive

15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

SECTION 16. Other information

16.1. Other information

Points modified compared to previous release: 2.1. Classification of the substance or mixture, 2.2. Label elements

Description of hazard statements set out in paragraph 3

H290 = May be corrosive to metals.

H314 = Causes severe skin burns and eye damage.

H318 = Causes serious eye damage.

H335 = May cause respiratory irritation.

H319 = Causes serious eye irritation.

H302 = Harmful if swallowed.

H315 = Causes skin irritation.

H317 = May cause an allergic skin reaction.

H400 = Very toxic to aquatic life.

Classification based on data of all mixture components

Main normative references:

Reg. (CE) n. 1907 del 18/12/06 REACH (Registration, Evaluation and Authorisation of CHemicals) et seq.

Reg. (CE) 1272/2008 CLP (Classification Labelling and Packaging) et seq.

Regulation (EC) n. 648 of 31/03/04 (on detergents) et seq.

Regulation (UE) n. 1169/2011 (on the provision of food information to consumers)

Directive 2012/18/EU (on the control of major-accident hazards involving dangerous substances) et seq.

Procedure used to classify under CLP mixture (Reg . EC 1272/2008):

Physical hazards: On the basis of experimental data

H314 Skin. Corr. 1A: On the basis of experimental data / Calculation Method

Other hazards: Calculation Method

Training required: This document must be submitted to the employer to determine the possible need for appropriate training for workers to ensure protection of human health and the environment.

n.a.: not applicable

n.d.: not available

ADR: Accord européen relative au transport International des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

ATE: Acute Toxicity Estimati

BFC: BioconCentration Factor

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstract Service number

CAP: Centre AntiPoison

CE/EC number EINECS (European Inventory of existing Commercial Substances) e ELINCS (European List of notified Chemical Substances)

CL50/LC50: Lethal Concentration 50

DL50/LD50: Lethal Dose 50

COD: Chemical Oxygen Demand

DNEL: Derived No Effect Level

EC50: half maximal Effective Concentration

ERC: Enviroment Release Classes

EU/UE: European Union

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IMDG: International Maritime Dangerous Goods code

Kow: Octanol water partition coefficient

NOEC: No Observed Effect Concentration

OEL: Occupational Exposure Limit

PBT: Persistent Bioaccumulative and Toxic

PC: Product Categories

PNEC: Predicted No Effect Concentration

PROC: Process Categories

RID: Règlement concernant le transport International ferroviaire des marchandises dangereuses (Regulations concerning International rail transport of dangerous goods)

STOT: Target Organ Systemic Toxicity

STOT (RE): Repeated Exposure

STOT (SE): Single Exposure

STP: Sewage Treatment Plants

SU: Sector of Use

SVCH: Substance of Very High Concern

TLV: Threshold Limit Value

vPvB: Very Persistent Very Bioaccumulative

References and Sources:

- ECHA Registered Substances:
 - <https://echa.europa.eu/web/guest/information-on-chemicals/registered-substances>
- SDS supplier
- GESTIS DNEL Database: <http://www.dguv.de/ifa/gestis/gestis-dnel-datenbank/index-2.jsp>
- GESTIS International Limit Value: <http://limitvalue.ifa.dguv.de>

This msds was made in good faith by AEB technical Office on the basis of the information available at the date of the last revision. The person in charge must regularly inform the employees about the specific risks they encounter when using this substance/product. The information contained here relate only to the substance/the preparation indicated and may not apply if the product is used improperly or in combination with others. Nothing contained herein shall be construed as a guarantee, either express or implied. It is the responsibility of the user to ensure the opportunities and completeness of the information contained herein for their own particular use.

*** this tab annuls and replaces any previous edition. (IIXX)

Changes to the previous edition: classification variation. Exposure scenario variation. Attached working instruction table

SUMI**Safe Use of Mixtures Information****AISE_SUMI_IS_2_1***Version 1.1, August 2018****Industrial uses; use in closed process***

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

General description of the process covered

The SUMI applies to industrial uses where products are used in closed process with occasional controlled exposure. This Safe Use Information is based on the **AISE_SWED_IS_2_1**.

Operational Conditions

Maximum duration	480 minutes per day.
Range of application / Process conditions	Indoor Use.
	Process carried out at room temperature.
	In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	See section 8 of the SDS of this product for specifications.
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

Don't eat or drink. Don't smoke. Don't use in proximity of open flame.	
Wash hands after use. Avoid contact with damaged skin. Do not mix with other products.	
Spillage instructions	Dilute with fresh water and mop up.
Hygiene practices	Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

Disclaimer

This is a document for communicating generic conditions of safe use of a product. It is the responsibility of the formulator to link this SUMI to the SDS of a specific product that he is selling.

If a SUMI (or associated SWED) code is mentioned in the SDS of a product, the formulator of that product declares that all substances in the mixture are present in such concentration, that the use of the product within the conditions of the SUMI is safe. When available, this safe use is ensured by evaluating the results of the chemical safety assessments as performed by the raw material suppliers. When no chemical safety assessment has been carried out by the supplier for an ingredient that contributes to the classification of the mixture, the formulator has performed a safety assessment himself.

Following Occupational Health legislation, the employer of workers that use products that are assessed as safe following SUMI conditions remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product.

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SUMI**Safe Use of Mixtures Information****AISE_SUMI_IS_4_2***Version 1.1, August 2018****Industrial uses; Automated task; Semi-automated task; Dedicated equipment***

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.


General description of the process covered

The SUMI applies to industrial uses where products are used in closed process where opportunity for exposure arises. This Safe Use Information is based on the **AISE_SWED_IS_4_2**.

Operational Conditions

Maximum duration	480 minutes per day.
Range of application / Process conditions	Indoor Use.
	Process carried out at room temperature.
	In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	Wear suitable gloves. See section 8 of the SDS of this product for specifications. 
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

Don't eat or drink. Don't smoke. Don't use in proximity of open flame.	
Wash hands after use. Avoid contact with damaged skin. Do not mix with other products.	
Spillage instructions	Dilute with fresh water and mop up.
Hygiene practices	Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

Disclaimer

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SUMI**Safe Use of Mixtures Information****AISE_SUMI_IS_8b_1***Version 1.1, August 2018****Transfer and dilution of concentrated product by using dedicated dosing system***

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.


General description of the process covered

This SUMI applies to industrial uses where products are transferred to or diluted in a dedicated dosing system. This Safe Use Information is based on the **AISE_SWED_IS_8b_1_L** and **AISE_SWED_IS_8b_1_S**

Operational Conditions

Maximum duration	60 minutes per day.
Range of application / Process conditions	Indoor Use.
	Process carried out at room temperature.
	In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	Wear suitable gloves. See section 8 of the SDS of this product for specifications. 
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

Don't eat or drink. Don't smoke. Don't use in proximity of open flame.	
Wash hands after use. Avoid contact with damaged skin. Do not mix with other products.	
Spillage instructions	Dilute with fresh water and mop up.
Hygiene practices	Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

Disclaimer

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If a SUMI (or associated SWED) code is mentioned in the SDS of a product, the formulator of that product declares that all substances in the mixture are present in such concentration, that the use of the product within the conditions of the SUMI is safe. When available, this safe use is ensured by evaluating the results of the chemical safety assessments as performed by the raw material suppliers. When no chemical safety assessment has been carried out by the supplier for an ingredient that contributes to the classification of the mixture, the formulator has performed a safety assessment himself.

Following Occupational Health legislation, the employer of workers that use products that are assessed as safe following SUMI conditions remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product.

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SUMI**Safe Use of Mixtures Information****AISE_SUMI_IS_10_1_G***Version 1.1, August 2018****Brushing; Automated task***

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.


General description of the process covered

This SUMI applies to industrial uses where the product is used in an automated brushing task. This Safe Use Information is based on the **AISE_SWED_IS_10_1**.

Operational Conditions

Maximum duration	480 minutes per day.
Range of application / Process conditions	Indoor Use.
	Process carried out at room temperature.
	In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	Wear suitable gloves and eye protection. See section 8 of the SDS of this product for specifications. 
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

Don't eat or drink. Don't smoke. Don't use in proximity of open flame.	
Wash hands after use. Avoid contact with damaged skin. Do not mix with other products.	
Spillage instructions	Dilute with fresh water and mop up.
Hygiene practices	Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

Disclaimer

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Following Occupational Health legislation, the employer of workers that use products that are assessed as safe following SUMI conditions remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product.

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SUMI**Safe Use of Mixtures Information****AISE_SUMI_IS_13_3_G***Version 1.1, August 2018****Industrial uses; Treatment of articles by dipping or pouring***

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.


General description of the process covered

This SUMI applies to industrial uses where articles are treated by dipping or pouring. This Safe Use Information is based on the **AISE_SWED_IS_13_3**.

Operational Conditions

Maximum duration	480 minutes per day.
Range of application / Process conditions	Indoor Use.
	Process carried out at room temperature.
	In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	Wear suitable gloves and eye protection. See section 8 of the SDS of this product for specifications. 
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

Don't eat or drink. Don't smoke. Don't use in proximity of open flame.	
Wash hands after use. Avoid contact with damaged skin. Do not mix with other products.	
Spillage instructions	Dilute with fresh water and mop up.
Hygiene practices	Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

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SUMI**Safe Use of Mixtures Information****AISE_SUMI_PW_4_1***Version 1.1, August 2018****Professional uses; Semi-closed system***

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

General description of the process covered

The SUMI applies to professional uses where products are used in closed process where opportunity for exposure arises. This Safe Use Information is based on the **AISE_SWED_PW_4_1**.

Operational Conditions

Maximum duration	480 minutes per day.
Range of application / Process conditions	Indoor Use.
	Process carried out at room temperature.
	In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	See section 8 of the SDS of this product for specifications.
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

Don't eat or drink. Don't smoke. Don't use in proximity of open flame.	
Wash hands after use. Avoid contact with damaged skin. Do not mix with other products.	
Spillage instructions	Dilute with fresh water and mop up.
Hygiene practices	Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

Disclaimer

This is a document for communicating generic conditions of safe use of a product. It is the responsibility of the formulator to link this SUMI to the SDS of a specific product that he is selling.

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Following Occupational Health legislation, the employer of workers that use products that are assessed as safe following SUMI conditions remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product.

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SUMI**Safe Use of Mixtures Information****AISE_SUMI_PW_8a_1_G***Version 1.1, August 2018****Transfer of product to a container (bottle/bucket/machine)***

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.



General description of the process covered

This SUMI applies to professional uses where the product is transferred to or diluted in a container, such as a dispenser, bottle or bucket. Safe Use Information is based on the **AISE_SWED_PW_8a_1_L** and **AISE_SWED_PW_8a_1_S**.

Operational Conditions

Maximum duration	60 minutes per day.
Range of application / Process conditions	Indoor Use.
	Process carried out at room temperature.
	In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	Wear suitable gloves and eye protection. See section 8 of the SDS of this product for specifications.  
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

Don't eat or drink. Don't smoke. Don't use in proximity of open flame.	
Wash hands after use. Avoid contact with damaged skin. Do not mix with other products.	
Spillage instructions	Dilute with fresh water and mop up.
Hygiene practices	Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

Disclaimer

This is a document for communicating generic conditions of safe use of a product. It is the responsibility of the formulator to link this SUMI to the SDS of a specific product that he is selling.

If a SUMI (or associated SWED) code is mentioned in the SDS of a product, the formulator of that product declares that all substances in the mixture are present in such concentration, that the use of the product within the conditions of the SUMI is safe. When available, this safe use is ensured by evaluating the results of the chemical safety assessments as performed by the raw material suppliers. When no chemical safety assessment has been carried out by the supplier for an ingredient that contributes to the classification of the mixture, the formulator has performed a safety assessment himself.

Following Occupational Health legislation, the employer of workers that use products that are assessed as safe following SUMI conditions remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product.

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SUMI**Safe Use of Mixtures Information****AISE_SUMI_PW_10_2_G***Version 1.1, August 2018****Professional uses; Brushing after trigger spraying or brushing with tools***

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.



General description of the process covered

This SUMI applies to professional uses where the product is brushed on a surface, with limited exposure to the hands, either after trigger spraying or through the use of tools such as a mop. This Safe Use Information is based on the **AISE_SWED_PW_10_2**.

Operational Conditions

Maximum duration	480 minutes per day.
Range of application / Process conditions	Indoor Use.
	Process carried out at room temperature.
	In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	Wear suitable gloves and eye protection. See section 8 of the SDS of this product for specifications.  
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

Don't eat or drink. Don't smoke. Don't use in proximity of open flame.	
Wash hands after use. Avoid contact with damaged skin. Do not mix with other products.	
Spillage instructions	Dilute with fresh water and mop up.
Hygiene practices	Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

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Following Occupational Health legislation, the employer of workers that use products that are assessed as safe following SUMI conditions remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product.

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SUMI**Safe Use of Mixtures Information****AISE_SUMI_PW_13_1_G***Version 1.1, August 2018****Professional uses - Treatment of articles by dipping, soaking or pouring***

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.


General description of the process covered

This SUMI applies to professional uses where articles are treated by dipping or pouring. This Safe Use Information is based on the **AISE_SWED_PW_13_1**.

Operational Conditions

Maximum duration	60 minutes per day.
Range of application / Process conditions	Indoor Use.
	Process carried out at room temperature.
	In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	Wear suitable gloves and eye protection. See section 8 of the SDS of this product for specifications.
	 Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

Don't eat or drink. Don't smoke. Don't use in proximity of open flame.	
Wash hands after use. Avoid contact with damaged skin. Do not mix with other products.	
Spillage instructions	Dilute with fresh water and mop up.
Hygiene practices	Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

Disclaimer

This is a document for communicating generic conditions of safe use of a product. It is the responsibility of the formulator to link this SUMI to the SDS of a specific product that he is selling.

If a SUMI (or associated SWED) code is mentioned in the SDS of a product, the formulator of that product declares that all substances in the mixture are present in such concentration, that the use of the product within the conditions of the SUMI is safe. When available, this safe use is ensured by evaluating the results of the chemical safety assessments as performed by the raw material suppliers. When no chemical safety assessment has been carried out by the supplier for an ingredient that contributes to the classification of the mixture, the formulator has performed a safety assessment himself.

Following Occupational Health legislation, the employer of workers that use products that are assessed as safe following SUMI conditions remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product.

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WORKING ISTRUCTION TABLE



This tab provides instructions for appropriate and safe use of products and proper management of emergency situations for cleaning staff/users.

Attached to MSDS rel#8 del 08/28/19

Use description	Use in closed, continuous process with occasional controlled exposure [PROC2]; Use in batch and other process (synthesis) where opportunity for exposure arises [PROC4]; Transfer of substance or mixture (charging and discharging) at nondedicated facilities [PROC8a]; Transfer of substance or mixture (charging and discharging) at dedicated facilities [PROC8b]; Application with rollers or brushes [PROC10]; Treatment of articles by dipping and pouring [PROC13]
Product name	DOMAL
Classification of the product (100%)	H290 - May be corrosive to metals. H314 - Causes severe skin burns and eye damage. H318 - Causes serious eye damage.
Classification of the diluted product (maximum use concentration)	At maximux concentration of use (4%) the product is classified: H314 - Causes severe skin burns and eye damage. H318 - Causes serious eye damage.
Handling of the product (100%)	Avoid contact and inhalation of vapors Wear protective gloves/protective clothing/eye protection/face protection. At work do not eat or drink.
Handling of the diluted product	Avoid contact and inhalation of vapors Wear protective gloves/protective clothing/eye protection/face protection. At work do not eat or drink.
DPI required concentrated product (racking, concentrated use, spillage...)	Chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3), safety glasses (EN 166).
Diluted product	Chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3), safety glasses (EN 166).

In case of emergency (accidents involving exposure to the product)	Immediately inform the customer. Immediately inform the employer. Contact Poisons Centres tel. number in 1.4 section of the MSDS
Accidental release large quantities measures: concentrated product	Wear gloves, glasses and protective clothing (for specifications refer to section 8.2. SDS) Possibly absorb it with inert material or suck it. After wiping up, wash with water the area and materials involved
Diluted product	Wear gloves, glasses and protective clothing. Wash with water the area and materials involved
Storage of the product	Keep in original container closed tightly. Do not store in open or unlabelled containers. Keep containers upright and safe by avoiding the possibility of falls or collisions. Store in a cool and dry place, away from heat sources and direct exposure to sunlight.
In case of accidents, emergency or fire	Immediately inform the customer. Follow company emergency instruction.