



SAFETY DATA SHEET of: 220044 DW Calc

Revision date: Wednesday, April 15, 2026
S142.774

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

1.1 Product identifier:

220044 DW Calc

UFI: 8A4U-D36F-730V-SEPN

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

Limescale-Remover (AISE_SUMI_PW_8a_1_G)

Concentration in use: /

1.3 Details of the supplier of the safety data sheet:

BOMA

Noorderlaan 131

B2030 Antwerpen

Phone: 003232313389 – E-mail: info@boma.eu – Website: <http://www.boma.eu/>

1.4 Emergency telephone number:

BE: +32 70 245 245 // NL: +31 88 755 8000 Nationaal Vergiftigingen Informatie Centrum (NVIC) (Uitsluitend bestemd om professionele hulpverleners te informeren bij acute vergiftigingen.) // FR: + 33 (0)1 45 42 59 59 // LUX: (+352) 8002-5500

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:

Classification of the substance or mixture in accordance with regulation (EU) 1272/2008

EUH071 H302+H332 Acute tox. 4 H314 Skin Corr. 1B H318 Eye Dam. 1

2.2 Label elements:

Pictograms



Signal word

Danger

Hazard statements

EUH071:	Corrosive to the respiratory tract.
H302+H332 Acute tox. 4:	Harmful if swallowed or if inhaled.
H314 Skin Corr. 1B H318 Eye Dam. 1:	Causes severe skin burns and eye damage.

Precautionary statements

P271:	Use only outdoors or in a well-ventilated area.
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.
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.
P310:	Immediately call a POISON CENTER or doctor.

Contains

Formic acid

2.3 Other hazards:

None

SECTION 3: Composition/information on ingredients:

3.2 Mixtures:

Lactic acid	≤ 40 %	CAS number: 50-21-5 EINECS: 200-018-0 REACH Registration number: 01-2119548400-48 CLP Classification: H315 Skin Irrit. 2 H318 Eye Dam. 1
Formic acid	≤ 20 %	CAS number: 64-18-6 EINECS: 200-579-1 REACH Registration number: 01-2119491174-37 CLP Classification: EUH071 H226 Flam. Liq. 3 H290 Met. Corr. 1 H302 Acute tox. 4 H314 Skin Corr. 1A H318 Eye Dam. 1 H331 Acute tox. 3 Additional data: ATE (H302) = 500 mg/kg ; ATE(H331) = 7,85 mg/l ; H314 Skin Corr 1A >= 90% ; H314 Skin Corr. 1B 10-90% : H315/H319 2-10%

Hydrochloric acid	≤ 0.9 %	CAS number: 7647-01-0 EINECS: 231-595-7 REACH Registration number: 01-2119484862-27 CLP Classification: H290 Met. Corr. 1 H314 Skin Corr. 1B H318 Eye Dam. 1 H335 STOT SE 3 Additional data: H314 >25% ; H315/H319 10-25% ; H335 >10%
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For the full text of the H phrases mentioned in this section, see section 16.

SECTION 4: First aid measures:

4.1 Description of first aid measures:

Always ask medical advice as soon as possible should serious or continuous disturbances occur.

Skin contact:	Remove contaminated clothing, rinse skin with plenty of water and immediately transport to hospital.
Eye contact:	Thoroughly rinse with water (contact lenses to be removed if this is easily done) then take to physician.
Ingestion:	Rinse mouth, do not induce vomiting, take to hospital immediately.
Inhalation:	Let sit upright, fresh air, rest and take to hospital.

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

Skin contact:	Caustic, redness, pain, serious burns
Eye contact:	Caustic, redness, blurred vision, pain
Ingestion:	Caustic, lack of breath, vomiting, blisters on lips and tongue, burning pain in mouth and throat, gullet and stomach
Inhalation:	Headache, dizziness, nausea, drowsiness, unconsciousness

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

None

SECTION 5: Firefighting measures:

5.1 Extinguishing media:

CO2, foam, powder, sprayed water

5.2 Special hazards arising from the substance or mixture:

None

5.3 Advice for firefighters:

Extinguishing agents to be avoided: None

SECTION 6: Accidental release measures:

6.1 Personal precautions, protective equipment and emergency procedures:

Do not walk into or touch spilled substances and avoid inhalation of fumes, smoke, dusts and vapours by staying up wind. Remove any contaminated clothing and used contaminated protective equipment and dispose of it safely.

6.2 Environmental precautions:

Do not allow to flow into sewers or open water.

6.3 Methods and material for containment and cleaning up:

Contain released substance, store into suitable containers. If possible, remove by using absorbent material.

6.4 Reference to other sections:

For further information, check sections 8 & 13.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling:

Handle with care to avoid spillage.

7.2 Conditions for safe storage, including any incompatibilities:

Keep in a sealed container in a closed, frost-free, ventilated room.

7.3 Specific end use(s):

Limescale-Remover (AISE_SUMI_PW_8a_1_G)

SECTION 8: Exposure controls/personal protection:

8.1 Control parameters:

Listing of the hazardous ingredients in section 3, of which the workplace exposure limit values are known

Formic acid 9.5 mg/m³, Hydrochloric acid 8 mg/m³

8.2 Exposure controls:

Inhalation protection:	Use with sufficient exhaust ventilation. If necessary, use an air-purifying face mask in case of respiratory hazards. Use the ABEK type as protection against these troublesome levels.	
Skin protection:	Handling with Viton-gloves (EN 374). Breakthrough time: >480' Material thickness: 0,7 mm. Thoroughly check gloves before use. Take of the gloves properly without touching the outside with your bare hands. The manufacturer of the protective gloves has to be consulted about the suitability for a specific work station. Wash and dry your hands.	
Eye protection:	Keep an eye-rinse bottle within reach. Tight-fitting safety goggles. Wear a face shield and protective suit in case of exceptional processing problems.	

Other protection:	Wear impermeable clothing. The type of protective equipment depends on the concentration and amount of hazardous substances at the work station in question.	
Environmental controls:	Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions. For further information, check sections 6 and 13.	
Engineering controls:	The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Adequate ventilation should be provided so that exposure limits are not exceeded. For further information, check section 7.	

SECTION 9: Physical and chemical properties:

9.1 Information on basic physical and chemical properties:

Physical state, 20°C:	Liquid
Colour:	colourless
Odour:	characteristic
Melting point/freezing point:	0 °C
Boiling point/Boiling range:	100 °C – 100 °C
Flammability (solid, gas):	Not applicable
Lower explosive limit, (Vol %):	/
Upper explosive limit, (Vol %):	/
Flash point:	/
Auto-ignition temperature:	/
Decomposition temperature:	/
pH:	0.1
pH 1% diluted in water:	/
Kinematic viscosity, 40°C:	1 mm ² /s
Solubility in water:	Completely soluble
Partition coefficient: n-octanol/water (log value):	Not applicable
Vapour pressure, 20°C,:	/
Relative density, 20°C:	1.1180 kg/l
Vapour density:	Not applicable
Particle characteristics:	/

9.2 Other information:

Dynamic viscosity, 20°C:	1 mPa.s
Sustained combustion test:	/
Evaporation rate (n-BuAc = 1):	0.300
Volatile organic component (VOC):	17.00 %
Volatile organic component (VOC):	190.060 g/l

SECTION 10: Stability and reactivity:

10.1 Reactivity:

Stable under normal conditions.

10.2 Chemical stability:

Extremely high or low temperatures.

10.3 Possibility of hazardous reactions:

None

10.4 Conditions to avoid:

Protect from sunlight and do not expose to temperatures exceeding + 50°C.

10.5 Incompatible materials:

Acids, alkalines, oxidants, reductants

10.6 Hazardous decomposition products:

Under recommended usage conditions, hazardous decomposition products are not expected.

SECTION 11: Toxicological information:

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

a) acute toxicity:

H302+H332 Acute tox. 4: Harmful if swallowed or if inhaled.

Calculated acute toxicity, ATE oral: 1,889.813 mg/kg

Calculated acute toxicity, ATE dermal: > 2,000 mg/kg

Lactic acid	LD50 oral, rat: 3,730 mg/kg LD50 dermal, rabbit: ≥ 5,000 mg/kg LC50, Inhalation, rat, 4h: ≥ 50 mg/l
Formic acid	LD50 oral, rat: 500 mg/kg LD50 dermal, rabbit: ≥ 5,000 mg/kg LC50, Inhalation, rat, 4h: 7.4 mg/l
Hydrochloric acid	LD50 oral, rat: ≥ 5,000 mg/kg LD50 dermal, rabbit: ≥ 5,000 mg/kg LC50, Inhalation, rat, 4h: ≥ 50 mg/l

b) skin corrosion/irritation:

EUH071: Corrosive to the respiratory tract. H314 Skin Corr. 1B H318 Eye Dam. 1: Causes severe skin burns and eye damage.

c) serious eye damage/irritation:

H314 Skin Corr. 1B H318 Eye Dam. 1: Causes severe skin burns and eye damage.

d) respiratory or skin sensitisation:

Not classified according to the CLP calculation method

e) germ cell mutagenicity:

Not classified according to the CLP calculation method

f) **carcinogenicity:**

Not classified according to the CLP calculation method

g) **reproductive toxicity:**

Not classified according to the CLP calculation method

h) **STOT-single exposure:**

Not classified according to the CLP calculation method

i) **STOT-repeated exposure:**

Not classified according to the CLP calculation method

j) **aspiration hazard:**

Not classified according to the CLP calculation method

11.2 Information on other hazards:

No additional data available

SECTION 12: Ecological information:

12.1 Toxicity:

Lactic acid	LC50 (Fish): EC50 (Daphnia): NOEC (Daphnia): EC50 (Algae): NOEC (Algae): EC50 (soil microorganisms):	130 mg/L (4d) 130 - 250 mg/L (48h) 180 mg/L (48h) 2.8 g/L (72h) 1.9 g/L (70h) 100 mg/L (3h)
Formic acid	LC50 (Fish): EC50 (Daphnia): EC50 (Algae):	130 mg/l (Danio rerio) (96h) 365 mg/l (48h) 1240 mg/l (Pseudokirchneriella subcapitata) (72h)
Hydrochloric acid	EC50 (Daphnia): EC50 (Algae):	0,45 mg/l (48h) 0,73 mg/l (72h)

12.2 Persistence and degradability:

The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.

12.3 Bioaccumulative potential:

No additional data available

12.4 Mobility in soil:

Water hazard class, WGK (AwSV): 1

Solubility in water: Completely soluble

12.5 Results of PBT and vPvB assessment:

No additional data available

12.6 Endocrine disrupting properties:

No additional data available

12.7 Other adverse effects:

No additional data available

SECTION 13: Disposal considerations:

13.1 Waste treatment methods:

The product may be discharged in the indicated percentages of utilization, provided it is neutralised to pH 7. Possible restrictive regulations by local authority should always be adhered to.

SECTION 14: Transport information:



14.1 UN number or ID number:

3412

14.2 UN proper shipping name:

UN 3412 Formic acid, 8, II, (E)

14.3 Transport hazard class(es):

Class(es):	8
Identification number of the hazard:	80

14.4 Packing group:

II

14.5 Environmental hazards:

Not dangerous to the environment

14.6 Special precautions for user:

Hazard characteristics:	Risk of burns. Risk to the aquatic environment and the sewerage system.
Additional guidance:	Not applicable

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:

Water hazard class, WGK (AwSV):	1
Volatile organic component (VOC):	17.000 %
Volatile organic component (VOC):	190.060 g/l
Composition by regulation (EC) 648/2004:	Nonionic surfactants < 5%, Phosphonates < 5%

15.2 Chemical Safety Assessment:

No data available

SECTION 16: Other information:

Legend to abbreviations used in the safety data sheet:

ADR:	The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE:	Acute Toxicity Estimate
BCF:	Bioconcentration factor
CAS:	Chemical Abstracts Service
CLP:	Classification, Labelling and Packaging of chemicals
EINECS:	European INventory of Existing commercial Chemical Substances
LC50:	median Lethal Concentration for 50% of subjects
LD50:	median Lethal Dose for 50% of subjects
Nr.:	Number
PBT:	Persistent, Toxic, Bioaccumulative
STOT:	Specific Target Organ Toxicity
UFI:	Unique Formula Identifier
vPvB:	very Persistent and very Bioaccumulative substances
WGK:	Water hazard class
WGK 1:	Slightly hazardous for water
WGK 2:	Hazardous for water
WGK 3:	Extremely hazardous for water

Legend to the H Phrases used in the safety data sheet

EUH071: Corrosive to the respiratory tract. H226 Flam. Liq. 3: Flammable liquid and vapour. H290 Met. Corr. 1: May be corrosive to metals. H302 Acute tox. 4: Harmful if swallowed. H302+H332 Acute tox. 4: Harmful if swallowed or if inhaled. H314 Skin Corr. 1A H318 Eye Dam. 1: Causes severe skin burns and eye damage. H314 Skin Corr. 1B H318 Eye Dam. 1: Causes severe skin burns and eye damage. H315 Skin Irrit. 2: Causes skin irritation. H318 Eye Dam. 1: Causes serious eye damage. H331 Acute tox. 3: Toxic if inhaled. H335 STOT SE 3: May cause respiratory irritation.

CLP Calculation method

On basis of test data for corrosivity, CLP Calculation method for all other classes

Reason of revision, changes of following items

Section: 11

SDS reference number

ECM-107297,00

This safety information sheet has been compiled in accordance with annex II/A of the regulation (EU) No 2020/878. Classification has been calculated in accordance with European regulation 1272/2008 with their respective amendments. It has been compiled with the utmost care. We cannot, however, accept responsibility for damage, of any kind, that may be caused by using these data or the product concerned. To use this preparation for an experiment or a new application , the user must carry out a material suitability and safety study himself.