

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/21/2022

Reviewed on 09/23/2022

1 Identification

Product identifier**Trade name: CareCycle:DESCALE****Application of the substance / the mixture** Tablets for descaling**Details of the supplier of the safety data sheet****Supplier**

HOUNÖ A/S

Alsvej 1

DK-8940 Randers SV

Tel.: +45 8711 4711

E-mail: houno@houno.com

Manufacturer

O2-Tabs Desinfektion GmbH

Silberhofstr. 88

D-09599 Freiberg

Germany

Information department:

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E-Mail: info@medeagroup.de

contact person: Dr. Niels Ole Vesterager

Emergency telephone number: -

2 Hazard(s) identification

Classification of the substance or mixture

Skin Corrosion 1A

H314 Causes severe skin burns and eye damage.

Eye Damage 1

H318 Causes serious eye damage.

Sensitization - Skin 1

H317 May cause an allergic skin reaction.

Specific Target Organ Toxicity - Single Exposure 3 H335 May cause respiratory irritation.

Label elements**GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).**Hazard pictograms**

GHS05



GHS07

Signal word Danger**Hazard-determining components of labeling:**

maleic acid

Hazard statements

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

May cause respiratory irritation.

Precautionary statements

Do not breathe dusts or mists.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

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

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If swallowed: Rinse mouth. Do NOT induce vomiting.
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Immediately call a poison center/doctor.
 Specific treatment (see on this label).
 If skin irritation or rash occurs: Get medical advice/attention.
 Wash contaminated clothing before reuse.
 Store in a well-ventilated place. Keep container tightly closed.
 Store locked up.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:**NFPA ratings (scale 0 - 4)**

Health = 3

Fire = 0

Reactivity = 0

HMIS-ratings (scale 0 - 4)

Health = 3

Fire = 0

Reactivity = 0

Other hazards**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures**Description:** Mixture of the substances listed below with nonhazardous additions.**Dangerous components:**

5329-14-6	sulphamidic acid	50-100%
110-16-7	maleic acid	25-<50%

4 First-aid measures

Description of first aid measures**After inhalation:** Supply fresh air.**After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:**

Rinse opened eye for several minutes under running water.

Call a doctor immediately.

After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

Information for doctor:**Most important symptoms and effects, both acute and delayed** No further relevant information available.**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

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5 Fire-fighting measures

Extinguishing media

Suitable extinguishing agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray.

Use fire fighting measures that suit the environment.

Special hazards arising from the substance or mixture No further relevant information available.

Advice for firefighters

Protective equipment: Wear self-contained respiratory protective device.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Wear protective clothing.**Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Pick up mechanically.

Send for recovery or disposal in suitable receptacles.

Wash residues with water.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Protective Action Criteria for Chemicals

PAC-1:

5329-14-6	sulphamidic acid	9.5 mg/m ³
110-16-7	maleic acid	2.1 mg/m ³
144-55-8	sodium hydrogencarbonate	13 mg/m ³

PAC-2:

5329-14-6	sulphamidic acid	100 mg/m ³
110-16-7	maleic acid	23 mg/m ³
144-55-8	sodium hydrogencarbonate	140 mg/m ³

PAC-3:

5329-14-6	sulphamidic acid	630 mg/m ³
110-16-7	maleic acid	140 mg/m ³
144-55-8	sodium hydrogencarbonate	840 mg/m ³

7 Handling and storage

Handling:

Precautions for safe handling Prevent formation of dust.**Information about protection against explosions and fires:** No special measures required.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: Store only in the original receptacle.**Information about storage in one common storage facility:** Not required.

Further information about storage conditions:

Keep receptacle tightly sealed.

Protect from humidity and water.

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Specific end use(s) No further relevant information available.

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8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.**Control parameters****Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls**Personal protective equipment:****General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Breathing equipment: In case of dust formation use respiratory protective device.

Protection of hands: Protective gloves

Material of gloves

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.2 mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Wear tightly sealed safety glasses when handling the solution.

Body protection: Protective work clothing

9 Physical and chemical properties

Information on basic physical and chemical properties**General Information****Appearance:**

Form:	Tablets
Color:	White
Odor:	Odorless
Odor threshold:	Not determined.

pH-value at 20 °C (68 °F): 1-2 (1%)

Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

Flash point: Not applicable.

Flammability (solid, gaseous): Not determined.

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

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Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure:	Not applicable.
Density:	Not determined.
Relative density	Not determined.
Vapor density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with Water:	Soluble.
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
Solvent content:	
Organic solvents:	0.0 %
VOC content:	0.0 g/l / 0.00 lb/gal
Solids content:	100.0 %
Other information	No further relevant information available.

10 Stability and reactivity

Reactivity No further relevant information available.**Chemical stability** Stable if stored according to specifications**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.**Possibility of hazardous reactions** No dangerous reactions known.**Conditions to avoid** Protect from humidity and water.**Incompatible materials:** alkaline agents**Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)

Oral	LD50	2,529 mg/kg (rat)
Dermal	LD50	5,571 mg/kg (rabbit)

5329-14-6 sulphamidic acid

Oral	LD50	3,160 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit) (OECD 402)

110-16-7 maleic acid

Oral	LD50	708 mg/kg (rat)
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Dermal	LD50	1,560 mg/kg (rabbit)
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Primary irritant effect:**on the skin:** Irritant to skin and mucous membranes.**on the eye:** Irritating effect.**Sensitization:** Sensitization possible through skin contact.**Additional toxicological information:**The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant**Carcinogenic categories****IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

Toxicity**Aquatic toxicity:****5329-14-6 sulphamidic acid**

LC50/96h 70.3 mg/l (Pimephales promelas)

EC50/48h 71.6 mg/l (Daphnia magna)

EC50/72h 48 mg/l (Desmodesmus subspicatus) (OECD 201)

110-16-7 maleic acid

LC50/96h 75 mg/l (fish) (EPA 660/3-75-009)

EC50/48h 42.81 mg/l (Daphnia magna) (OECD 202)

EC50/72h 74.35 mg/l (algae) (OECD 201)

Persistence and degradability No further relevant information available.**Behavior in environmental systems:****Bioaccumulative potential** No further relevant information available.**Mobility in soil** No further relevant information available.**Additional ecological information:****General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Results of PBT and vPvB assessment**PBT:** Not applicable.**vPvB:** Not applicable.**Other adverse effects** No further relevant information available.

13 Disposal considerations

Waste treatment methods**Recommendation:** Must not be disposed together with household garbage.

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Uncleaned packagings:**Recommendation:** Disposal must be made according to official regulations.**Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

UN-Number**DOT, IMDG, IATA**

UN1759

UN proper shipping name**DOT**

Corrosive solids, n.o.s. (Sulfamic acid, maleic acid)

IMDG, IATA

CORROSIVE SOLID, N.O.S. (SULPHAMIC ACID, maleic acid)

Transport hazard class(es)**DOT****Class**

8

Label

8

IMDG, IATA**Class**

8

Label

8

Packing group**DOT, IMDG, IATA**

III

Environmental hazards:**Marine pollutant:**

No

Special precautions for user

Warning: Corrosive substances

Hazard identification number (Kemler code):

80

EMS Number:

F-A,S-B

Segregation groups

(SGG1) Acids

Stowage Category

A

Transport in bulk according to Annex II of**MARPOL73/78 and the IBC Code**

Not applicable.

Transport/Additional information:**DOT****Quantity limitations**

On passenger aircraft/rail: 25 kg

On cargo aircraft only: 100 kg

IMDG**Limited quantities (LQ)**

5 kg

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Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

UN "Model Regulation":

UN 1759 CORROSIVE SOLID, N.O.S. (SULPHAMIC ACID, MALEIC ACID), 8, III

15 Regulatory information

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

No further relevant information available.

Sara

Section 355 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

Hazardous Air Pollutants

None of the ingredients is listed.

Proposition 65**Chemicals known to cause cancer:**

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

Carcinogenic categories**EPA (Environmental Protection Agency)**

None of the ingredients is listed.

TLV (Threshold Limit Value)

None of the ingredients is listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

Department issuing SDS: Department R&D**Contact:** Dr. Niels Ole Vesterager**Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

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NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Skin Corrosion 1A: Skin corrosion/irritation – Category 1A
Eye Damage 1: Serious eye damage/eye irritation – Category 1
Sensitization - Skin 1: Skin sensitisation – Category 1
Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

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