

Safety Data Sheet

according to Regulation (EC) No 1907/2006

SOLID CAL

Print date: 26.03.2015

Product code: LAINOX-0001

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

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

Descaler

Uses advised against

There is no information available on applications that are not advised.

1.3. Details of the supplier of the safety data sheet

Company name:	Lainox Ali S.p.a.	
Street:	Via Schiaparelli 15	
Place:	I-31029 Vittori Veneto (TV)	
Telephone:	+39 0438 9110	Telefax: +39 0438 912300
e-mail:	lainox@lainox.it	
Internet:	http://www.lainox.it/	
Responsible Department:	Responsible for the safety data sheet: sds@gbk-ingelheim.de	

1.4. Emergency telephone number: +49 700 463 743 629**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

Indications of danger: Xi - Irritant

R phrases:
Irritating to eyes.**Classification according to Regulation (EC) No. 1272/2008 [CLP]**Hazard categories:
Serious eye damage/eye irritation: Eye Irrit. 2
Hazard Statements:
Causes serious eye irritation.**2.2. Label elements**

Signal word:	Warning
Pictograms:	GHS07

**Hazard statements**

H319 Causes serious eye irritation.

Precautionary statements

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P501	Dispose of contents/container to waste treatment facility in accordance with local and national regulations .

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2.3. Other hazards

Not known.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Chemical characterization**

Mixture of the following substances with non-hazardous admixtures

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
201-069-1	Citric acid	85 - < 90 %
77-92-9	Xi - Irritant R36	
	Eye Irrit. 2; H319	
01-2119457026-42		

Full text of R-, H- and EUH-phrases: see section 16.

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Remove and wash contaminated clothing before re-use.
If you feel unwell, seek medical advice.

After inhalation

Ensure of fresh air.
In the event of persistent symptoms receive medical treatment.

After contact with skin

Wash off immediately with soap and plenty of water.
In the event of symptoms refer for medical treatment.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lens. Consult (eye) doctor immediately.

After ingestion

Rinse out mouth and give plenty of water to drink.
Never give anything by mouth to an unconscious person.
Seek medical treatment immediately.

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

Causes serious eye irritation.

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

Treat symptoms.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Product does not burn, fire-extinguishing activities according to surrounding.
Alcohol-resistant foam, dry chemical, carbon dioxide (CO₂), water-spray.

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Unsuitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixture

Fire may produce:

Carbon monoxide and carbon dioxide

In case of fire and/or explosion do not breathe fumes.

5.3. Advice for firefighters

Use breathing apparatus with independent air supply.

Protective suit.

Additional information

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with eyes, skin or mucous membrane.

Use personal protective clothing.

Respirator must be worn if exposed to dust.

Keep away noninvolved persons.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/ground water.

6.3. Methods and material for containment and cleaning up

Pick up mechanically, avoiding dust, and provide disposal in suitable recipients.

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

6.4. Reference to other sections

Information for safe handling look up chapter 7.

Information for personal protective equipment look up chapter 8.

Information for disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

No special measures necessary if used correctly.

Avoid contact with eyes, skin or mucous membrane.

Advice on protection against fire and explosion

The product is not combustible.

No special protective measures against fire required.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a dry, cool and well-ventilated place.

Keep only in original container.

Advice on storage compatibility

Keep away from food, drink and animal feeding stuffs.

Do not store together with: Bases

TRGS 510: Technical Rules for Hazardous Substances "storage of hazardous materials in portable tanks"

7.3. Specific end use(s)

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas.
See also chapter: 7

Protective and hygiene measures

Handle in accordance with good industrial hygiene and safety practice.
Avoid contact with skin, eyes and clothing.
Wash hands before breaks and at the end of workday.
Remove and wash contaminated clothes before re-use.
Keep away from food, drink and animal feeding stuffs.
When using do not eat, drink or smoke.

Eye/face protection

If used properly, no need to wear eye protection.
Safety goggles recommended, and avoid contact with eyes and skin.

Hand protection

If used properly, protective gloves are normally not required.
Preventive hand protection is recommended. Chemical-resistant gloves (EN 374).

Skin protection

Not required under normal use.

Respiratory protection

Breathing protection is not necessary in the case of correct usage under normal conditions.
Breathing apparatus (particle filter) only if dust is formed.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Solid
Colour:	Various, depending on coloration
Odour:	Odourless

pH-Value (at 20 °C):	> 2,0	Test method (10 g/l)
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Changes in the physical state

Melting point:	n.d.
Initial boiling point and boiling range:	n.d.
Flash point:	n.a.
Evaporation rate:	n.a.
Flammability	n.d.
Lower explosion limits:	n.d.
Upper explosion limits:	n.d.
Vapour pressure:	n.a.
Vapour density:	n.a.
Density:	n.d.
Bulk density:	n.d.
Water solubility: (at 20 °C)	Soluble

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Solubility in other solvents	No data available.
Partition coefficient:	n.d.
Ignition temperature:	n.d.
Auto-ignition temperature	n.a.
Explosive properties	The product is not explosive.
Decomposition temperature:	n.d.
Viscosity / dynamic:	n.a.
Viscosity / kinematic:	n.a.
Oxidizing properties	No data available.

9.2. Other information

No data available.

SECTION 10: Stability and reactivity**10.1. Reactivity**

No decomposition if stored and applied as directed.

10.2. Chemical stability

No decomposition if used as directed.

10.3. Possibility of hazardous reactions

Reactions with alkalis.

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

Bases.

10.6. Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

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

Acute toxicity

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
77-92-9	Citric acid				
	oral	LD50 mg/kg	11700	Rat	
	dermal	LD50 mg/kg	> 2000	Rat	

Irritation and corrosivity

Causes serious eye irritation.

Sensitising effects

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

STOT-single exposure

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

Severe effects after repeated or prolonged exposure

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

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Carcinogenic/mutagenic/toxic effects for reproduction

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

Aspiration hazard

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

Additional information on tests

The product has not been tested. The information is derived from the properties of the individual components.

Classification in compliance with the assessment procedure specified in the Regulation (EC) no 1272/2008.

Practical experience**Other observations**

If appropriately handled and if in accordance with the general hygienic rules, no damages to health have become known.

SECTION 12: Ecological information**12.1. Toxicity**

No data available.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
77-92-9	Citric acid	- 1,72

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

Low hazard to waters.

Further information

Do not release undiluted or in higher quantities into the groundwater, sewerage or waters.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Advice on disposal**

Should not be disposed of with household waste. Do not discharge into the drains or bodies of water. Disposal in accordance with local regulations.

Contaminated packaging

Uncontaminated packaging may be taken for recycling.
 Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.
 Recommended cleaning agent: Water with detergents.

SECTION 14: Transport information**Land transport (ADR/RID); Marine transport (IMDG); Air transport (ICAO); Inland waterways transport (ADN)**

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14.1. UN number:

No hazardous material as defined by the transport regulations.

14.2. UN proper shipping name:

No hazardous material as defined by the transport regulations.

14.3. Transport hazard class(es):

No hazardous material as defined by the transport regulations.

14.4. Packing group:

No hazardous material as defined by the transport regulations.

14.5. Environmental hazards

No hazardous material as defined by the transport regulations.

14.6. Special precautions for user

No hazardous material as defined by the transport regulations.

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

No hazardous material as defined by the transport regulations.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment

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

SECTION 16: Other information**Changes**

Changes in chapter: 2.1, 2.2, 3.2, 4.2, 15.1, 16.

Abbreviations and acronyms

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route

RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses

ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure

IMDG = International Maritime Code for Dangerous Goods

IATA/ICAO = International Air Transport Association / International Civil Aviation Organization

MARPOL = International Convention for the Prevention of Pollution from Ships

IBC-Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

REACH = Registration, Evaluation, Authorization and Restriction of Chemicals

CAS = Chemical Abstract Service

EN = European norm

ISO = International Organization for Standardization

DIN = Deutsche Industrie Norm

PBT = Persistent Bioaccumulative and Toxic

vPvB = Very Persistent and very Bio-accumulative

LD = Lethal dose

LC = Lethal concentration

EC = Effect concentration

IC = Median immobilisation concentration or median inhibitory concentration

Relevant R-phrases (Number and full text)

36 Irritating to eyes.

Relevant H- and EUH-phrases (Number and full text)

H319 Causes serious eye irritation.

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Further Information

The information in this Safety Data Sheet refer to the concentrate, not to the ready to use solution.

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

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