



SAFETY DATA SHEET

Regulation EC 1907/2006; Regulation EC 1272/2008



Product: CLEANER DESCALER

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1 - Identification of the substance or mixture and of the company/undertaking

- 1.1 Product identifier** **CLEANER DESCALER**
- 1.2 Relevant identified uses of the substance or mixture and uses advised against.**
Relevant identified uses: Cleaner and descaler
Uses advised against: Do not use for purposes other than those listed.
- 1.3 Information on the supplier of the safety data sheet**
Manufacturer: KEM SIDE Via Morandi, 5640060
Toscanella di Dozza BO (Italy) Tel. +39 0542-673947
Fax +39 0542-675724 cell. phone +39 335-5915998
e-mail: kemsiditalia@tiscali.it

Local Distributor:
SAFWAN TRADING & CONTRACTING CO. K.S.C.
ARDIYA INDUSTRIAL, BLOCK 1, BLDG NO.284
P.O.BOX: 20704
13068 SAFAT
KUWAIT
Tel: (965) 2227688
- 1.4 Emergency telephone number:** For urgent information contact the Poison Control Centres

Person responsible for sheet drafting: kemsid@tiscali.it
written on 14th February 2017

2 – Hazards identification

- 2.1 Classification of the substance or mixture.**
Classification according to regulation (EC) no. 1272/2008:
Category 2 eye irritation
H319: causes serious eye irritation.
- 2.2 Label elements.**
Labelling according to regulation (EC) no. 1272/2008.



Hazard pictogram:



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Signal word: Attention

Hazard statement: H319 - Causes serious eye irritation.

Precautionary statements - Prevention: P264 Wash the skin thoroughly after handling.
P280 - Wear protective gloves / protective clothing/ eye protection / face protection.

Precautionary statements - response: P305+P351 +P338 IF IN EYES Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P337 + P313 If eye irritation persists get medical advice/attention

P501 - Dispose of contents/ container in compliance with local regulations.

It contains: Anhydrous citric acid

2.3 Other hazards. n.a.

3 - Composition/information on ingredients

3.1. Substances

Not relevant


3.2. Mixtures

Substances contained and classified as hazardous for health according to Regulation EC 1272/2008.

Anhydrous citric acid				
Quantity	C.A.S	EC n.	no. Index	Symbols
100 %	77-92-9	201-069-1		H319

REACH notification no. 01-2119457026-42				
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Substances contained and classified as hazardous for health according to Regulation 1272/08 and following amendments or for which acknowledged exposure limits exist.

Substance	Class code and hazard category	Pictogram	Hazard statement codes	Registration no.
Citric acid	H319		R36	01-2119157026-12

4 - First aid measures

4.1 Description of first aid measures.



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General indications: In case of doubt, or if the symptoms persist, seek medical care.

Ingestion: Do not induce vomiting. Drink a lot of water.

Skin contact: Wash contaminated skin with plenty of water.

Eye contact: Rinse immediately with plenty of water for at least 15 minutes. Remove any contact lenses if easy to do and open your eyes properly. Continue rinsing.

Inhalation: Move casualty to the open air. Seek medical advice.

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

Symptoms: no information available

4.3 Indication of any immediate medical attention and special treatment needed

No recommendation provided.

If in doubt, SEEK MEDICAL ADVICE.

5 - Firefighting measures

5.1 Extinguishing media.

Suitable extinguishing media: Foam, carbon dioxide or dry powder, sprayed water.

Unsuitable extinguishing media for safety reasons: Do not use a jet of water as it could disperse or propagate fire.

5.2 Special hazard arising from the substance or mixture.

Do not use a jet of water as it could disperse or propagate fire.

5.3 Advice for firefighters.

Specific protective media: Wear a self-contained breathing apparatus.
Wear protective overalls for fire with chemical origin.

6 - Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures.

For safe handling follow the instructions described in this safety sheet.
Avoid dust formation.
Ensure an adequate ventilation.

6.2 Environmental precautions.

Do not allow the product to enter draining and sewage systems, or waterways. Uncontrolled spillages and discharges in waterways must be IMMEDIATELY signalled to the Authority for environmental protection and prevention or to the regulation body in charge.

6.3 Methods and materials for containment and clean-up.



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Wash the area with a lot of water. Collect the spilled material in containers, close them hermetically and dispose of them according to local regulation.

6.4 Reference to other sections.

No conditions that should be mentioned are present.

7 - Handling and storage

7.1 Precautions for safe handling.

Avoid spillage and contact with skin and eyes.

Avoid inhalation of vapours and sprays.

Ensure a proper ventilation.

Avoid dust formation - DUST EXPLOSION CLASS St1

7.2 Conditions for safe storage, including any incompatibility.

Store in the original package, properly closed and in a well ventilated area.

Protected against humidity.

Protect against freezing and direct sun light.

Do not stock for long periods or in large quantities.

Store away from: oxidising substances

7.3 Specific end uses.

For the recommendations relevant to specific end uses, refer to the specific instructions.

8 - Exposure controls / personal protection

8.1 Control parameters.

Limit exposure values:

Soil PNEC: 33.1 mg/kg

Water PNEC: 440 mg/l

Sea water PNEC: mg/l

Sediment (fresh water) PNEC: 34.6 mg/kg

PNEC: Sediment (sea water): mg/kg

8.2 Exposure controls.

Work general protective and hygiene rules.

Follow the standard safety measures for the handling of chemical substances.

Drinking and eating is forbidden during work.

Keep food, drinks and forage away. Immediately remove contaminated clothes.

Wash your hands before the break or after the work is completed. Avoid contact with eyes and skin.

Appropriate engineering controls

Operating conditions: Install an eye washing area and an emergency shower.





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Technical measures: Ensure proper localised and general ventilation.

Individual protection measures, such as personal protective equipment.

Protection of the airways Wear a full face mask with filter
for acid vapours or self-contained breathing apparatus. P2 filter



Hands protection: Wear protective gloves. Ask the manufacturer for advice for
choosing the most suitable gloves, as they can provide you
with information on the limit duration of the material they are
made of. We recommend the use of gloves in butyl rubber.



Eye protection: Wear a splash-guard visor and protective goggles

Skin protection: If the possibility of accidental contact with the liquid exist, wear
an anti-acid overall and boots.



Environmental exposure controls

Take all required technical precautions to avoid the release of the product into the
surrounding environment.



9 - Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	crystalline	
Odour:	odourless	
Odour threshold:	n.a.	
pH:	< 2	
Melting point / freezing point:	approx. 153°C	
Initial boiling point and boiling range:	n.d.	
Flash point:	non-flammable product	
Evaporation rate:	n.a.	
Flammability (solid, gas):	n.d.	
Upper / lower limits of flammability and explosiveness:	non-flammable product	
Vapour pressure at 20°C:	n.d.	
Vapour density:	n.d.	
Relative density at 20°C:	1,665 g/cm ³	
Solubility in/Miscibility with water:	800 g/l	
N-octanol/water partition coefficient:	Log pow 1.72	log pow calculation -1.8 - 0.2
Auto-ignition temperature:	n.d.	
Decomposition temperature:	n.d.	
Viscosity at 20°C:	n.d.	



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Explosive properties: n.d (dust explosion class: St1)

Oxidising properties: n.d.

9.2 Other information

n.a.

10 - Stability and reactivity

10.1 Reactivity.

No decomposition if stored and used as indicated

10.2 Chemical stability.

The product is stable in standard conditions

10.3 Possibility of hazardous reactions.

Unknown

10.4 Conditions to avoid.

Avoid the formation of dust

10.5 Incompatible materials.

Strong bases

Highly oxidising substances

10.6 Hazardous decomposition products.

Due to decomposition, hazardous toxic vapours may form.

11 – Toxicological information

11.1 Information on toxicological effects:

Relevant to the substances contained:

ANHYDROUS CITRIC ACID

Toxicokinetics, metabolism and distribution

a) Acute toxicity:

Oral

On the basis of the results of the oral acute toxicity study, no classification for oral acute toxicity based on EU criteria is provided.

DL50 oral (rat): 5400 mg/kg mouse, method OECD TG 401

DL50 oral 11700/mg/kg mouse, method OECD TG 401

Inhalation

Although the CL50 from the different toxicity studies by inhalation carried out with sulphuric acid theoretically determines the DSD classification with R23 "Toxic by inhalation" or CLP as Acute Tox 3 H331 "Toxic if inhaled", such classification is not proposed as the sulphuric acid effects after inhalation are linked to the local irritation of the airways (limited to the contact site) and there are no evidences for the systemic toxicity of sulphuric acid.

LD50 spray (rat): 375 mg/cu.m LD50



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spray (mouse): 0.85 mg/l/4 hours
LD50 spray (mouse): 0.6 mg/l/8 hours

Dermal

anhydrous citric acid LD 50 Dermal >2000 mg/kg on rat

acute toxicity with other routes of administration LD 50 725 mg/kg on rat
LD 50 940 mg/kg on mouse

b) Skin corrosion/irritation

irritating to the skin in particular on rabbit no skin irritation.
It may cause skin irritation on susceptible people

c) Serious eye damage/serious eye irritation

irritating to the eyes in particular on rabbit result: irritating to the eyes.

d) Respiratory or skin sensitisation

Maximisation test on guinea pigs result: it does not cause skin sensitisation
method OECD TG 406.

e) Germ cell mutagenicity

assessment: in vivo tests did not detect mutagenic effects.

f) Carcinogenicity

It did not show carcinogenic or teratogenic effects in animal testing.

g) Reproductive toxicity

No classification has been outlined for the reproductive and development toxicity.

h) Specific target organ toxicity (STOT) - single exposure:

not available data

i) Specific target organ toxicity (STOT) - repeated exposure:

not available data

j) Aspiration hazard:

not available data.

12 – Ecological information

12.1 Toxicity.

Relevant to the substances contained:

The information listed below refers to anhydrous citric acid.

On the basis of the ecological information listed below, and according to the criteria indicated in the regulations on hazardous substances.



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Water toxicity:

Endpoint	Result	Comments	Source
Invertebrates Daphnia magna Short term	CL50 24/hours: >1535 mg/l		
Leuciscus idus	CL 50 440 mg/l 48/h		
Algae Desmodesmus Growth inhibition	425 mg/l 168/h		
Bacteria: Pseudomonas	>10000 mg/l 16h		

12.2 Persistence and degradability.

97% degradability for the duration of the experiment 29d method OECD TG 301B
quickly biodegradable

12.3 Bioaccumulative potential.

Bioaccumulation improbable

12.4 Mobility in soil.

This substance is not considered as persistent, bioaccumulative and toxic (PBT)

12.5 Results of the PBT and vPvB assessment.

None of the criteria of annex XIII of REACH Regulation is met, therefore anhydrous citric acid is neither a PBT nor a vPvB substance.

12.7 Other adverse effects

None detected.

13 - Disposal considerations

13.1 Waste treatment methods.

For product waste disposal, including empty containers that have not been cleaned-up, comply with Legislative Decree 152/06 and following amendments and integrations and related legislation.

It is therefore recommended to contact the Authorities in charge or specialised and authorised Companies, which can provide you with indications on how to dispose of the waste. The product must be disposed of by complying with current regulation dispositions also in case of products derived from the neutralisation of spillages and leaks.

Package: dispose of according to local regulations.

14 - Transport information

14.1. UN number

UN no. (ADR/RID/ADN): not assigned – not applicable

UN no. (IMDG): not assigned – not applicable



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UN no. (ICAO): not assigned – not applicable

14.2. UN shipping name : not assigned – not applicable

14.3. Transport hazard classes

Classe ADR/RID/ADN: not assigned – not applicable (not hazardous)
Classe IATA: not assigned – not applicable (not hazardous)
Classe IMDG: not assigned – not applicable (not hazardous)
Classe/Divisione ICAO: not assigned – not applicable (not hazardous)

14.4. Packaging unit

ADR/RID/ADN packaging unit: not assigned – not applicable (not hazardous)
IMDG packaging unit: not assigned – not applicable (not hazardous)
ICAO packaging unit: not assigned – not applicable (not hazardous)

14.5. Environmental hazards

Marine pollutant: not assigned – not applicable (not hazardous)

14.6. Special precautions for users

Hazard no. (ADR): not assigned – not applicable (not hazardous)
Tunnel Restriction Code: not assigned – not applicable (not hazardous)

14.7. Transport in bulk according to annex II of MARPOL 73/78 and the IBC code

Pollution Category: not assigned – not applicable (not hazardous)
Ship Type: not assigned – not applicable (not hazardous)

15 - Regulation information

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

No specific provisions for the substance / mixture

15.2 Chemical safety assessment.

A chemical safety assessment has been carried out.

16 – Other information

Sheet released by: KEM SIDE

This safety sheet is based on the data currently available and it will be our responsibility to complete it and update it. The information refers only to the indicated product.

Any product use not complying with the dispositions of this safety sheet is under the exclusive responsibility of the user.

This sheet voids and supersedes any previous edition.

Key: n.a. = not available – n.a. = not applicable n.r.= not detected

Integral text of the R phrases cited in chapters 2-3



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R36 irritating to eyes

Complete text of H hazard statements cited under sections 2-3 H319
causes serious eye irritation.

Main bibliographic sources:

ACGIH Threshold Limit Value.

NIOSH Registry of toxics effects of chemical substances.

I.N.R.S. Fiche toxicologique.

E.C.H.A. Information on Registered Substances.

Abbreviations and acronyms:

ACGIH: American Conference of Industrial Hygienists.

NIOSH: The National Institute for Occupational Safety and Health (NIOSH)

I.N.R.S.: Institut National de Recherche et de Sécurité.

E.C.H.A. European Chemicals Agency

TLV: Treshold Limit Value.

TWA: time-weightened average

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail). IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA). ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO). GHS: Globally Harmonized System of Classification and Labelling of Chemicals.

EINECS: European Inventory of Existing Commercial Chemical Substances CAS:

Chemical Abstracts Service (division of the American Chemical Society). DNEL:

Derived No-Effect Level (REACH).

PNEC: Predicted No-Effect Concentration (REACH) LC50:

Lethal concentration, 50 percent.

LD50: Lethal dose, 50 percent.

NOAEL: No Observable Adverse Effect Level. STOT:

Single Target Organ Toxicity.

OECD: Organisation for Economic Co-operation and Development.

This sheet supersedes the previous ones.

DRAFTED on 15/11/2016