



Safety Data Sheet dated 19/1/2017, version 1 This version cancels and substitutes any previous version

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

1.1. Product identifier

Mixture identification:

Trade name:

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

Recommended use:

Acid Cleaner for Condensers in Tablet

1.3. Details of the supplier of the safety data sheet

Company:

Cool Air Products

5850 Waterloo Rd Suite 140

Columbia, MD 21045

443-506-8560

info@coolairproducts

1.4. Emergency telephone number

CHEMTREC (24 HOURS): US & Canada 800-424-9300 Call collect outside continental US & Canada: 703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)



Warning, Eye Irrit. 2, Causes serious eye irritation.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Warning

Hazard statements:

H319 Causes serious eye irritation.

Precautionary statements:

P280 Wear protective gloves and eye/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.

Special Provisions:

None

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards

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SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number		Classification	
>= 60% -	citric acid monohydrate	CAS:	5949-29-1	3.3/2 Eye Irrit. 2 H319	
< 70%		EC:	201-069-1	3.3/2 Eye IIII. 2 H319	
>= 15% -	adipic acid	Index	607-144-00-9	3.3/2 Eye Irrit. 2 H319	
< 20%		number:		3.3/2 Lyc IIII. 2 11317	
		CAS:	124-04-9		
		EC:	204-673-3		
>= 1% -	Sulfuric acid,	CAS:	68955-19-1	4.1/C3 Aquatic Chronic 3 H412	
< 2.5%	mono-C12-18-alkyl	EC:	273-257-1	3.2/2 Skin Irrit. 2 H315	
	esters, sodium salts	REACH No.:	01-21194902	\triangle	
			25-39-0001	3.3/1 Eye Dam. 1 H318	

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap. Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

None

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO2).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.



5.3. Advice for firefighters

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contamined clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

adipic acid - CAS: 124-04-9

ACGIH - TWA(8h): 5 mg/m3 - Notes: URT irr, ANS impair

DNEL Exposure Limit Values

Sulfuric acid, mono-C12-18-alkyl esters, sodium salts - CAS: 68955-19-1

Consumer: 24 mg/kg - Exposure: Human Oral - Frequency: Long Term, local effects Worker Professional: 285 mg/m^3 - Consumer: 85 mg/m^3 - Exposure: Human Inhalation

- Frequency: Long Term, local effects

Worker Professional: 4060 mg/kg - Consumer: 2440 mg/kg - Exposure: Human Dermal

- Frequency: Long Term, local effects

PNEC Exposure Limit Values

citric acid monohydrate - CAS: 5949-29-1

Target: Fresh Water - Value: 0.44 mg/l

Target: Freshwater sediments - Value: 34.6 mg/kg

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Target: Soil (agricultural) - Value: 33.1 mg/kg Target: Marine water - Value: 0.044 mg/l Target: Marine water - Value: 0.04 mg/l

8.2. Exposure controls

Eye protection:

Protective airtight goggles (ref. Standard EN 166).

Protection for skin:

Overall.

Protection for hands:

work gloves resistant to penetration (ref. standard EN 374).

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance and colour: solid blue Odour: characteristic

Odour threshold: N.A.
pH: N.A.
Melting point / freezing point: N.A.
Initial boiling point and boiling range: N.A.
Solid/gas flammability: N.A.

Upper/lower flammability or explosive limits: N.A.

Vapour density: N.A.
Flash point: N.A.
Evaporation rate: N.A.
Vapour pressure: N.A.
Relative density: N.A.
Solubility in water: soluble
Solubility in oil: N.A.
Partition coefficient (n-octanol/water): N.A.

Auto-ignition temperature: N.A.
Decomposition temperature: N.A.
Viscosity: N.A.
Explosive properties: N.A.
Oxidizing properties: N.A.

9.2. Other information

Miscibility: N.A.
Fat Solubility: N.A.
Conductivity: N.A.
Substance Groups relevant properties N.A.

V.O.C. (w/w): N.A.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

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None

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects Toxicological information of the product:

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a) acute toxicity

Classification: Not classified

Considerations: Based on available data, the classification criteria are

not met

b) skin corrosion/irritation

Classification: Not classified

Considerations: Based on available data, the classification criteria are

not met

c) serious eye damage/irritation

Classification: The product is classified: Eye Irrit. 2 H319

Data: Test: Eye Irritant Positive

d) respiratory or skin sensitisation

Classification: Not classified

Considerations: Based on available data, the classification criteria are

not met

e) germ cell mutagenicity

Classification: Not classified

Considerations: Based on available data, the classification criteria are

not met

f) carcinogenicity

Classification: Not classified

Considerations: Based on available data, the classification criteria are

not met

g) reproductive toxicity

Classification: Not classified

Considerations: Based on available data, the classification criteria are

not met

h) STOT-single exposure

Classification: Not classified

Considerations: Based on available data, the classification criteria are

not met

i) STOT-repeated exposure

Classification: Not classified

Considerations: Based on available data, the classification criteria are

not met

j) aspiration hazard

Classification: Not classified

Considerations: Based on available data, the classification criteria are

not met

Toxicological information of the main substances found in the product:

citric acid monohydrate - CAS: 5949-29-1

a) acute toxicity:



Test: LD50 - Route: Oral - Species: Mouse = 5400 mg/kg - Source: OCSE 401 Test: LD50 - Route: Oral - Species: Rat = 11700 mg/kg - Source: OCSE 401 Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg -Source: OCSE 402 Test: NOAEL - Route: Oral - Species: Rat 4 mg/kg -Notes: bw/day e) germ cell mutagenicity: Test: Mutagenesis Negative - Source: OECD 471 - Notes: Ames Test (in vitro) Test: Mutagenesis Negative - Source: OECD 475 - Notes: chromosomal aberration test (in vivo) g) reproductive toxicity: Test: NOAEL - Species: Rat > 295 mg/kg - Notes: bw/day; effective dose (fetal development) adipic acid - CAS: 124-04-9

Test: LD50 - Route: Oral - Species: Rat 5560 mg/kg Test: LD50 - Route: Skin - Species: Rabbit > 7940 mg/kg

Sulfuric acid, mono-C12-18-alkyl esters, sodium salts - CAS: 68955-19-1

a) acute toxicity:

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 2600 mg/kg

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

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Classification: Not classified for environmental hazards

Considerations: Based on available data, the classification criteria are not met

Data:

citric acid monohydrate - CAS: 5949-29-1

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 440 mg/l - Duration h: 48 - Notes: Leuciscus idus

melanotus

Endpoint: LC50 - Species: Daphnia = 1535 mg/l - Duration h: 24 - Notes: Daphnia

magna

Endpoint: LC50 - Species: Algae = 425 mg/l - Duration h: 168 - Notes: Scenedesmus

quadricauda

c) Bacteria toxicity:

Endpoint: LC50 > 10000 mg/l - Duration h: 16 - Notes: Pseudomonas putida

12.2. Persistence and degradability

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Biodegradability: Readily biodegradable - Test: OECD 301 - Duration: N.A. - %: N.A. -

Notes: N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

SECTION 13: Disposal considerations



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13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es)

N.A.

14.4. Packing group

N.A.

14.5. Environmental hazards

ADR-Environmental Pollutant: No IMDG-Marine pollutant: No

14.6. Special precautions for user

N.A.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code N.A.

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) 2015/830

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

No restriction.

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions:

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

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SECTION 16: Other information

Full text of phrases referred to in Section 3:

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

H315 Causes skin irritation.

H318 Causes serious eye damage.

Hazard class and hazard category	Code	Description
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Eye Irrit. 2, H319	Calculation method

This document was prepared by a competent person who has received appropriate training. Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of

Dangerous Goods by Road.

CAS: Chemical Abstracts Service (division of the American Chemical

Society).

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances.

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of

Chemicals.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport

Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization"

(ICAO).

IMDG: International Maritime Code for Dangerous Goods. INCI: International Nomenclature of Cosmetic Ingredients.

KSt: Explosion coefficient.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

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PNEC: Predicted No Effect Concentration.

RID: Regulation Concerning the International Transport of Dangerous Goods

by Rail.

STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWA: Time-weighted average
WGK: German Water Hazard Class.