

TriClean 210

Version 3.0
Revision Date 12.10.2006

Print Date 18.10.2006

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product information

Trade name : TRICLEAN 210
Supplier : TriSep Corporation
93 South La Patera Lane
Goleta, CA 93177
USA

Emergency telephone number : 1-760-602-6096

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

Mixture of substances listed below with nonhazardous additions.

Hazardous components

Citric acid	Concentration: $\geq 60,00\%$ - $< 95,00\%$
CAS-No.: 77-92-9	EC-No.: 201-069-1
Classification: Xi; R36	

For the full text of the R phrases mentioned in this Section, see Section 16.

3. HAZARDS IDENTIFICATION

Risk advice to man and the environment

Xi R36 Irritating to eyes.

4. FIRST AID MEASURES

General advice : Take off all contaminated clothing immediately.
Inhalation : Remove to fresh air. If symptoms persist, call a physician.
Skin contact : Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.
Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.
Ingestion : Clean mouth with water and drink afterwards plenty of water. If symptoms persist, call a physician.

TriClean 210

Version 3.0
Revision Date 12.10.2006

Print Date 18.10.2006

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Extinguishing media which must not be used for safety reasons : None known.
- Specific hazards during fire fighting : Combustible material. Hazardous decomposition products formed under fire conditions. Carbon oxides
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.
- Additional advice : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Wear personal protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation, especially in confined areas. Avoid dust formation.
- Environmental precautions : Do not flush into surface water or sanitary sewer system.
- Methods for cleaning up : Use mechanical handling equipment. Keep in suitable, closed containers for disposal. Flush with plenty of water.

7. HANDLING AND STORAGE

Handling

- Advice on safe handling : Avoid dust formation. Keep tightly closed in a dry and cool place. Provide for appropriate exhaust ventilation and dust collection at machinery.
- Advice on protection against fire and explosion : Combustible material. Avoid dust formation. Fine dust dispersed in air may ignite.

Storage

- Requirements for storage areas and containers : No special storage conditions required.
- Advice on common storage : Materials to avoid; alkalis; Reducing agents; Incompatible with oxidizing agents.
- Further information on storage conditions : Keep container tightly closed. Keep in a dry place. Avoid moisture.
- German storage class : 11: Combustible Solids

TriClean 210

Version 3.0
Revision Date 12.10.2006

Print Date 18.10.2006

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

General dust limiting value (DFG):
alveolar fraction (A) 1,5 mg/m³
inhalable fraction (E) 4 mg/m³
MAK and BAT value list 2005

Personal protective equipment

- Respiratory protection : Required if dust is released; Dust-mask; Particle filter:P2;
Particle filter:P3
- Hand protection : Protective gloves; The following materials are suitable: natural
rubber; Nitrile rubber; butyl-rubber; PVC; Protective gloves
should be replaced at first signs of wear.
- Eye protection : Safety glasses
- Body Protection : Protective suit
- Hygiene measures : Take off all contaminated clothing immediately. Wash hands
before breaks and at the end of workday. When using do not
eat, drink or smoke. Avoid contact with skin and eyes. Avoid
dust formation.

Engineering measures

Refer to protective measures listed in sections 7 and 8.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

- Form : powder
- Colour : white
- Odour : odourless

Safety data

- Boiling point/range : not applicable
- Flash point : not applicable
- Density : 1,665 g/cm³
- Water solubility : 1.620 g/l; 25 °C
- pH : 2 - 3; 10 g/l

10. STABILITY AND REACTIVITY

- Materials to avoid : Keep away from strong oxidizing agents and strong reducing

TriClean 210

Version 3.0
Revision Date 12.10.2006

Print Date 18.10.2006

Hazardous decomposition products : agents. Incompatible with bases.
: Carbon oxides

General advice : No decomposition if used as directed.

11. TOXICOLOGICAL INFORMATION

Ingestion : Citric acid: LD50 rat > 6.730 mg/kg
: Citric acid: LD50 rabbit > 7.000 mg/kg
: Citric acid: LD50 mouse 5.400 mg/kg

Skin contact : May cause skin irritation in susceptible persons.

Eye contact : Irritating to eyes.

Sensitization : not sensitizing

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability : Citric acid: Zahn-Wellens Test 98 % 7 d; Readily biodegradable

Toxicity to fish : Citric acid: LC0 Carassius auratus (goldfish) 625 mg/l

Toxicity to daphnia : Citric acid:
LC0 Daphnia magna (Water flea) 80 mg/l

Toxicity to algae : Citric acid: EC0 Scenedesmus quadricauda (Green algae) 640 mg/l

Toxicity to bacteria : Citric acid: EC0 Pseudomonas putida > 10.000 mg/l 16 h

Further information on ecology

Additional ecological information : Do not flush into surface water or sanitary sewer system.

13. DISPOSAL CONSIDERATIONS

Product : Disposal together with normal waste is not allowed. Do not let product enter drains. Major quantities should be disposed accordingly with the local regulations.

Packaging : Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Clean container with water.

TriClean 210

Version 3.0
Revision Date 12.10.2006

Print Date 18.10.2006

14. TRANSPORT INFORMATION

ADR: Not dangerous goods

RID: Not dangerous goods

IMDG: Not dangerous goods

15. REGULATORY INFORMATION

Labelling according to EC Directives

The product is classified and labelled in accordance with EC directives or respective national laws.



Xi Irritant

R-phras(e)s	R36	Irritating to eyes.
S-phras(e)s	S22 S24/25 S26	Do not breathe dust. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

National legislation

WGK (DE)	:	WGK:1; slightly water endangering; Self-classification according VwVwS of 17 May 1999, Annex 4
Major Accident Hazard Legislation	:	Does not fall under the German StörfallV. -

16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3



SAFETY DATA SHEET according to EC directive 2001/58/EC

TriClean 210

Version 3.0
Revision Date 12.10.2006

Print Date 18.10.2006

R36 Irritating to eyes.

Further information

The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship. The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

Indicates updated section.