technotrans

Safety Data Sheet

according to UK REACH Regulation

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

1.1. Product identifier

cc 506

UFI: 2DDG-UDVG-ATP2-YH16

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

Use of the substance/mixture

Water treatment chemicals

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Company name:	technotrans solutions GmbH	
Street:	Scherl 10	
Place:	D-58540 Meinerzhagen	
Telephone:	+49 2354 7060 - 0	Telefax: +49 2354 7060 - 150
E-mail (Contact person):	info-solutions@technotrans.de	
Internet:	www.technotrans.de	
Responsible Department:	Wassertechnik	

1.4. Emergency telephone number:

Giftnotruf Berlin +49 (0) 30 30686700

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Acute Tox. 4; H332
Eye Irrit. 2; H319
STOT SE 3; H335

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

citric acid
Prop-2-in-1-ol, Reaktionsprodukt mit 1 - 2,5 mol Oxiran

Signal word: Warning

Pictograms:

Hazard statements

H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.

Precautionary statements

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing 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.

P312	Call a POISON CENTER/doctor if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container to ....

Special labelling of certain mixtures

EUH208	Contains reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.

Additional advice on labelling

The product is classified and labelled according to EC directives or corresponding national laws.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Formulation of preparations (mixtures)

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
77-92-9	citric acid			20 - < 25 %
	201-069-1	607-750-00-3	01-2119457026-42	
	Eye Irrit. 2, STOT SE 3; H319 H335			
25749-64-8	Prop-2-in-1-ol, Reaktionsprodukt mit 1 - 2,5 mol Oxiran			1 - < 5 %
			01-2120065599-40	
	Acute Tox. 2, Acute Tox. 4, Eye Dam. 1, STOT SE 3; H330 H302 H318 H335			
55965-84-9	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)			< 0.0015 %
	-	613-167-00-5	01-2120764691-48	
	Acute Tox. 2, Acute Tox. 2, Acute Tox. 3, Skin Corr. 1C, Eye Dam. 1, Skin Sens. 1A, Aquatic Acute 1, Aquatic Chronic 1; H330 H310 H301 H314 H318 H317 H400 H410 EUH071			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
77-92-9	201-069-1	citric acid	20 - < 25 %
	inhalation: LC50 = ca. 75 mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 5400 mg/kg		
25749-64-8		Prop-2-in-1-ol, Reaktionsprodukt mit 1 - 2,5 mol Oxiran	1 - < 5 %
	inhalation: ATE = 0,5 mg/l (vapours); inhalation: ATE = 0,05 mg/l (dusts or mists); oral: ATE = 500 mg/kg		
55965-84-9	-	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	< 0.0015 %
	inhalation: ATE = 0,5 mg/l (vapours); inhalation: ATE = 0,05 mg/l (dusts or mists); dermal: ATE = 50 mg/kg; oral: ATE = 100 mg/kg Skin Corr. 1C; H314: >= 0,6 - 100 Skin Irrit. 2; H315: >= 0,06 - < 0,6 Eye Dam. 1; H318: >= 0,6 - 100 Eye Irrit. 2; H319: >= 0,06 - < 0,6 Skin Sens. 1A; H317: >= 0,0015 - 100 Aquatic Acute 1; H400: M=100 Aquatic Chronic 1; H410: M=100		

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated, saturated clothing immediately.

After inhalation

Provide fresh air.

After contact with skin

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

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. Consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Call a physician immediately.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water. Foam. ABC powder.Carbon dioxide.

Unsuitable extinguishing media

No information available.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Thermal decomposition can lead to the escape of irritating gases and vapours.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Collect in closed and suitable containers for disposal.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Wear personal protection equipment.

For non-emergency personnel

No information available.

For emergency responders

No information available.

6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3. Methods and material for containment and cleaning up

For containment

No information available.

For cleaning up

No information available.

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).
Rinse off residues with water.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

No special measures required if used correctly.

Advice on protection against fire and explosion

No data available

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep/Store only in original container. Prevent penetration into the ground safely.

Hints on joint storage

Keep away from food, drink and animal feedingstuffs.

Further information on storage conditions

Protect from frost.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls

Individual protection measures, such as personal protective equipment

Eye/face protection

Tightly sealed safety glasses.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
Chemical-resistant protective gloves (EN 374), Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to> 30 minutes permeation time to EN 374), eg. B. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinyl chloride (0.7 mm), etc. .. Because of the large variety of types, the instructions for use of the manufacturer must be observed.

Skin protection

The wearing of closed work clothing is recommended.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Environmental exposure controls

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	yellow
Odour:	characteristic
Odour threshold:	No data available

		Test method
Melting point/freezing point:	- 1 °C	DIN 51532
Boiling point or initial boiling point and boiling range:	> 100 °C	DIN 3405
Lower explosion limits:	No data available	
Upper explosion limits:	No data available	
Flash point:	No data available	
Auto-ignition temperature:	No data available	
Decomposition temperature:	No data available	
pH-Value (at 20 °C):	1 - 1,9	DIN 19261
Viscosity / kinematic:	No data available	
Water solubility: (at 25 °C)	miscible	
Solubility in other solvents		
No data available		
Dissolution rate:	No data available	
Partition coefficient n-octanol/water:	No data available	
Vapour pressure:	No data available	
Vapour pressure:	No data available	
Density (at 25 °C):	ca. 1,1 g/cm³	DIN 53479
Relative density:	No data available	

9.2. Other information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

No information available.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

No hazardous reaction when handled and stored according to provisions.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No information available.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

Harmful if inhaled.

ATEmix calculated

ATE (oral) > 5000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) 3,3330 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
77-92-9	citric acid				
	oral	LD50 5400 mg/kg	Mouse		OECD 401
	dermal	LD50 > 2000 mg/kg	Rat		
	inhalation vapour	LC50 ca. 75 mg/l	Guinea pig		
25749-64-8	Prop-2-in-1-ol, Reaktionsprodukt mit 1 - 2,5 mol Oxiran				
	oral	ATE 500 mg/kg			
	inhalation vapour	ATE 0,5 mg/l			
	inhalation dust/mist	ATE 0,05 mg/l			
55965-84-9	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)				
	oral	ATE 100 mg/kg			
	dermal	ATE 50 mg/kg			
	inhalation vapour	ATE 0,5 mg/l			
	inhalation dust/mist	ATE 0,05 mg/l			

Irritation and corrosivity

Serious eye damage/eye irritation: Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

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

Contains reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

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

STOT-single exposure

May cause respiratory irritation. (citric acid)

STOT-repeated exposure

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

Aspiration hazard

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

11.2. Information on other hazards

Endocrine disrupting properties

No information available.

Further information

No information available.

SECTION 12: Ecological information

12.1. Toxicity

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

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
77-92-9	citric acid						
	Acute fish toxicity	LC50	440 mg/l	96 h	Leuciscus idus		OECD 203
	Acute crustacea toxicity	EC50 mg/l	15,35	48 h	Daphnia magna		OECD 202
	Crustacea toxicity	NOEC	425 mg/l	8 d	Scenedesmus quadricauda		
55965-84-9	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)						
	Acute fish toxicity	LC50 mg/l	0,22	96 h	Onchorhyncus mykiss		
	Acute algae toxicity	ErC50 mg/l	0,63	72 h	Pseudokirchneriella subcapitata		
	Acute crustacea toxicity	EC50 mg/l	0,0052	48 h	Daphnie		
	Fish toxicity	NOEC mg/l	0,098	28 d	Onchorhyncus mykiss		
	Algae toxicity	NOEC mg/l	0,0012	3 d	Pseudokirchneriella subcapitata		
	Crustacea toxicity	NOEC mg/l	0,004	21 d	Daphnie		
	Acute bacteria toxicity	EC50 mg/l ( )	7,92	3 h	Pseudomonas putida		

12.2. Persistence and degradability

Technically correct releases of minimal concentrations to adapted biological sewage treatment facility, will not disturb the biodegradability of activated sludge.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
77-92-9	citric acid			
	OECD 301B	97 %	28	
	Readily biodegradable (according to OECD criteria).			
	OECD 301 E	100 %	19	
	Readily biodegradable (according to OECD criteria).			
55965-84-9	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)			
	OECD 301 D Closed-Bottle-Test	> 60 %		
	OECD A: Activated Sludge Units	> 80 %		

12.3. Bioaccumulative potential

An accumulation in organisms is not to be expected.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
77-92-9	citric acid	-1,8 - -0,2
55965-84-9	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	< 0,71

BCF

CAS No	Chemical name	BCF	Species	Source
55965-84-9	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	3,16		

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains.
Dispose of contents/container to an appropriate recycling or disposal facility.
Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.
Send to a hazardous waste incinerator facility under observation of official regulations.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself. Contaminated packages must be completely emptied and can be re-used following proper cleaning. Packing which cannot be properly cleaned must be disposed of.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number or ID number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number or ID number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No information available.

14.7. Maritime transport in bulk according to IMO instruments

No information available.

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 2 - obviously hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
citric acid
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1.

Abbreviations and acronyms

Acute Tox: Acute toxicity
Skin Corr: Skin corrosion
Eye Dam: Eye damage
Eye Irrit: Eye irritation
Skin Sens: Skin sensitisation
STOT SE: Specific target organ toxicity - single exposure
Aquatic Acute: Acute aquatic hazard
Aquatic Chronic: Chronic aquatic hazard
CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
IMDG: International Maritime Code for Dangerous Goods
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
SVHC: Substance of Very High Concern

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Acute Tox. 4; H332	Calculation method
Eye Irrit. 2; H319	Calculation method
STOT SE 3; H335	Calculation method

Relevant H and EUH statements (number and full text)

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.

H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.
EUH208	Contains reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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