

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**C20C000 TISAB-F - Electrolyte for fluoride determination**

Revision date: 08.04.2015

Product code: C20C000

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

C20C000 TISAB-F - Electrolyte for fluoride determination

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

Reagent for analysis

**1.3. Details of the supplier of the safety data sheet**

Company name: HACH LANGE GmbH  
Street: Willstätterstr. 11  
Place: D-40549 Düsseldorf  
Telephone: +49 (0)211 5288 383  
e-mail: SDS@hach-lange.de  
Internet: www.hach-lange.com  
Responsible Department: HACH LANGE Ltd.  
5, Pacific Way  
Salford Manchester M50 1DL - United Kingdom  
Tel. +44 (0) 161 872 1487 \* Fax +44 (0) 161 848 7324  
e-Mail: info-uk@hach.com

HACH LANGE Ltd.  
Unit 1, Chestnut Road Western Industrial Estate  
IRL-Dublin 12  
Tel. +353 (0)1 4602522  
e-Mail: info-ie@hach.com

**1.4. Emergency telephone number:**

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

**2.2. Label elements****Additional advice on labelling**

Das Gemisch ist nicht als gefährlich eingestuft im Sinne der Verordnung (EG) Nr. 1272/2008.

**2.3. Other hazards**

no data available

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

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#### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
7732-18-5	Water			> 78 %
	231-791-2			
6131-90-4	Sodium acetate			< 10 %
	204-823-8			
7647-14-5	Sodium chloride			< 10 %
	231-598-3			
64-19-7	acetic acid ... %			< 1,5 %
	200-580-7	607-002-00-6		
	Flam. Liq. 3, Skin Corr. 1A; H226 H314			
13291-61-7	1,2-Cyclohexanediaminetetraacetic Acid Trisodium Salt			< 0,3 %
	236-308-9			
	Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H315 H319 H335			

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

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

###### General information

Take off contaminated clothing and shoes immediately.  
Show this safety data sheet to the doctor in attendance.

###### After inhalation

Move to fresh air.  
If symptoms persist, call a physician.

###### After contact with skin

Wash off immediately with plenty of water for at least 15 minutes.  
If skin irritation persists, call a physician.

###### After contact with eyes

Immediately flush eye(s) with plenty of water.  
If eye irritation persists, consult a specialist.

###### After ingestion

Clean mouth with water and drink afterwards plenty of water.

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

No known effect.

##### 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

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The

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product itself does not burn.

### Unsuitable extinguishing media

No Limit

### 5.2. Special hazards arising from the substance or mixture

Fire may liberate hazardous vapours.

### 5.3. Advice for firefighters

In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit.

### Additional information

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

Only qualified personnel equipped with suitable protective equipment may intervene. Immediately evacuate personnel to safe areas.

For personal protection see section 8.

### 6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

### 6.3. Methods and material for containment and cleaning up

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local/national regulations (see section 13).

### 6.4. Reference to other sections

13. Disposal considerations

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Avoid contact with skin and eyes.

Do not breathe vapours/dust.

Wash thoroughly after handling.

General industrial hygiene practice.

#### Advice on protection against fire and explosion

See also section 5

#### Further information on handling

Avoid contact with skin, eyes and clothing.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

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

#### Hints on joint storage

None known.

#### Further information on storage conditions

no data available

### 7.3. Specific end use(s)

Reagent for analysis

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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
64-19-7	Acetic acid	10	25		TWA (8 h)	EU
		15	37		STEL (15 min)	EU

#### Additional advice on limit values

None known.

### 8.2. Exposure controls

#### Appropriate engineering controls

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Handle in accordance with good industrial hygiene and safety practice.

#### Protective and hygiene measures

Wash hands before breaks and after work.

General industrial hygiene practice.

#### Eye/face protection

Safety glasses with side-shields

#### Hand protection

Use barrier skin cream.

Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374. In full contact:

Gloves material: Viton, Layer thickness: 0.70 mm, Breakthrough time: >480 min. In splash contact: Glove

material: nitrile rubber, Layer thickness 0,20 mm, Breakthrough time: > 30 min

#### Skin protection

Avoid contact with skin, eyes and clothing.

#### Respiratory protection

Provide adequate ventilation.

#### Environmental exposure controls

Do not flush into surface water or sanitary sewer system.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless
Odour:	of vinegar
pH-Value (at 25 °C):	5,3

#### Changes in the physical state

Melting point:	not applicable
Initial boiling point and boiling range:	100 °C
Sublimation point:	not applicable
Softening point:	not applicable
Pour point:	no data available
:	no data available
Flash point:	no data available

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Sustaining combustion: No data available

**Flammability**

Solid: not applicable

Gas: not applicable

**Explosive properties**

no data available

Lower explosion limits: no data available

Upper explosion limits: no data available

Ignition temperature: no data available

**Auto-ignition temperature**

Solid: not applicable

Gas: not applicable

Decomposition temperature: not applicable

**Oxidizing properties**

no data available

Vapour pressure: no data available

Vapour pressure: no data available

Density (at 20 °C): 1,1 g/cm<sup>3</sup>

Bulk density: not applicable

Water solubility: soluble

**Solubility in other solvents**

no data available

Partition coefficient: no data available

Viscosity / dynamic: no data available

Viscosity / kinematic: no data available

Flow time: no data available

Vapour density: no data available

Evaporation rate: no data available

Solvent separation test: no data available

Solvent content: no data available

**9.2. Other information**

Solid content: no data available

no data available

## SECTION 10: Stability and reactivity

**10.1. Reactivity**

No dangerous reaction known under conditions of normal use.

**10.2. Chemical stability**

The product is chemically stable.

**10.3. Possibility of hazardous reactions**

Hazardous polymerisation does not occur.

**10.4. Conditions to avoid**

Extremes of temperature and direct sunlight.

**10.5. Incompatible materials**

None known.

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#### 10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

#### **Further information**

Stable under recommended storage conditions.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### **Toxicokinetics, metabolism and distribution**

Angaben zur Toxikologie liegen nicht vor.

##### **Acute toxicity**

No data is available on the product itself.

Health injuries are not known or expected under normal use.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7647-14-5	Sodium chloride				
	oral	LD50 mg/kg 3000	Ratte		
	dermal	LD50 mg/kg >10000	Kaninchen		
64-19-7	acetic acid ... %				
	oral	LD50 mg/kg 3310	Rat	GESTIS	

##### **Irritation and corrosivity**

May cause eye and skin irritation.

##### **Sensitising effects**

No known effect.

##### **Carcinogenic/mutagenic/toxic effects for reproduction**

Contains no ingredient listed as a carcinogen

##### **STOT-single exposure**

The substance or mixture is not classified as specific target organ toxicant, single exposure.

##### **STOT-repeated exposure**

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

##### **Aspiration hazard**

No aspiration toxicity classification

##### **Specific effects in experiment on an animal**

No toxicology information is available.

##### **Additional information on tests**

None known.

##### **Practical experience**

##### **Observations relevant to classification**

None known.

##### **Other observations**

None known.

##### **Further information**

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

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## SECTION 12: Ecological information

### 12.1. Toxicity

No information on ecology is available. No data is available on the product itself.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
7647-14-5	Sodium chloride					
	Acute fish toxicity	LC50 mg/l	7650	96 h	Pimephales promelas	
	Acute crustacea toxicity	EC50 mg/l	1000	48 h	Daphnia magna	
64-19-7	acetic acid ... %					
	Acute crustacea toxicity	EC50	65 mg/l	48 h	Daphnia magna	Janssen et al

### 12.2. Persistence and degradability

No data is available on the product itself.

### 12.3. Bioaccumulative potential

no data available

### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
64-19-7	acetic acid ... %	-0,17

### 12.4. Mobility in soil

no data available

### 12.5. Results of PBT and vPvB assessment

no data available

### 12.6. Other adverse effects

No known effect.

### Further information

No known effect.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal recommendations

In accordance with local and national regulations.

Our local agencies will accept used cuvettes to ensure their proper disposal. (nur bei Küvettentest, nicht Hach und GE)

#### List of Wastes Code - residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

#### List of Wastes Code - used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

#### List of Wastes Code - contaminated packaging

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

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**Contaminated packaging**

Dispose of as unused product.

**SECTION 14: Transport information****Land transport (ADR/RID)****Other applicable information (land transport)**

Not subject to transport regulations.

**Inland waterways transport (ADN)****Other applicable information (inland waterways transport)**

Not tested

**Marine transport (IMDG)****Other applicable information (marine transport)**

Not subject to transport regulations.

**Air transport (ICAO-TI/IATA-DGR)****Other applicable information (air transport)**

Not subject to transport regulations.

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

no data available

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

Not relevant

**Other applicable information**

no data available

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

Water hazard class (D): 1 - slightly hazardous to water

**15.2. Chemical safety assessment**

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

**SECTION 16: Other information****Changes**

Revision: 08.04.2015

Safety datasheet sections which have been updated: 2

Revision: 12.07.2013

**Relevant H and EUH statements (number and full text)**

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.



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**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.

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