

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision Date 25.01.2021

Version 10.2

## SECTION 1. Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Catalogue No.	101764
Product name	Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50 mg/l CTAB Spectroquant®
	T
REACH Registration Number	This product is a mixture. REACH Registration Number see section 3.

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

Identified uses	Reagent for analysis For additional information on uses please refer to the Merck Chemicals portal ( <a href="http://www.merckgroup.com">www.merckgroup.com</a> ).
-----------------	---

### 1.3 Details of the supplier of the safety data sheet

Company	Merck KGaA * 64271 Darmstadt * Germany * Phone: +49 6151 72-0
Responsible Department	LS-QHC * e-mail: <a href="mailto:prodsafe@merckgroup.com">prodsafe@merckgroup.com</a>

### 1.4 Emergency telephone number

**Please contact the regional company representation in your country.**

## SECTION 2. Hazards identification

### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008)**

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50 mg/l CTAB Spectroquant®  
T

---

Acute toxicity, Category 4, Oral, H302  
Acute toxicity, Category 3, Inhalation, H331  
Skin irritation, Category 2, H315  
Eye irritation, Category 2, H319  
Carcinogenicity, Category 2, H351  
Reproductive toxicity, Category 2, H361d  
Specific target organ toxicity - single exposure, Category 3, Central nervous system, H336  
Specific target organ toxicity - repeated exposure, Category 1, Oral, Liver, Kidney, H372  
For the full text of the H-Statements mentioned in this Section, see Section 16.

## 2.2 Label elements

### Labelling.(REGULATION (EC) No 1272/2008)

#### Hazard pictograms



Signal word  
Danger

#### Hazard statements

H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H331 Toxic if inhaled.  
H336 May cause drowsiness or dizziness.  
H351 Suspected of causing cancer.  
H361d Suspected of damaging the unborn child.  
H372 Causes damage to organs (Liver, Kidney) through prolonged or repeated exposure if swallowed.

#### Precautionary statements

##### Prevention

P201 Obtain special instructions before use.

##### Response

P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.  
P302 + P352 IF ON SKIN: Wash with plenty of water.  
P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

For use in industrial installations only.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50 mg/l CTAB Spectroquant®  
T

---

## Reduced labelling (≤125 ml)

*Hazard pictograms*



*Signal word*  
Danger

*Hazard statements*

H331 Toxic if inhaled.  
H351 Suspected of causing cancer.  
H372 Causes damage to organs through prolonged or repeated exposure if swallowed.  
H361d Suspected of damaging the unborn child.

*Precautionary statements*

P201 Obtain special instructions before use.  
P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Contains: Chloroform, n-butanol

## 2.3 Other hazards

None known.

---

## SECTION 3. Composition/information on ingredients

Chemical nature Mixture of organic compounds

### 3.1 Substance

Not applicable

### 3.2 Mixture

---

## SECTION 4. First aid measures

### 4.1 Description of first aid measures

*General advice*

First aider needs to protect himself. Show this safety data sheet to the doctor in attendance.

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

---

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50 mg/l CTAB Spectroquant®  
T

---

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

Headache, Nausea, Vomiting, irritant effects, respiratory arrest, Dizziness, inebriation, Stomach/intestinal disorders, cardiovascular disorders, agitation, spasms, ataxia (impaired locomotor coordination), narcosis  
Drying-out effect resulting in rough and chapped skin.

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

Laxative: Sodium sulfate (1 tablespoon/1/4 l water). Subsequently administer: activated charcoal (20 - 40 g in 10% slurry).

---

## SECTION 5. Firefighting measures

### 5.1 Extinguishing media

*Suitable extinguishing media*

Water, Foam, Carbon dioxide (CO<sub>2</sub>), Dry powder

*Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

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

Mixture with combustible ingredients.

Fire may cause evolution of:

Hydrogen chloride gas, Phosgene

Development of hazardous combustion gases or vapours possible in the event of fire.

### 5.3 Advice for firefighters

*Special protective equipment for firefighters*

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

*Further information*

Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

---

## SECTION 6. Accidental release measures

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

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

### 6.2 Environmental precautions

Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50 mg/l CTAB Spectroquant®  
T

---

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

## 6.4 Reference to other sections

Indications about waste treatment see section 13.

---

## SECTION 7. Handling and storage

### 7.1 Precautions for safe handling

#### *Advice on safe handling*

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

#### *Hygiene measures*

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

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

#### *Storage conditions*

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorised persons.

Recommended storage temperature see product label.

The data applies to the entire pack.

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

---

## SECTION 8. Exposure controls/personal protection

### 8.1 Control parameters

#### **Derived No Effect Level (DNEL)**

#### **Predicted No Effect Concentration (PNEC)**

#### *Chloroform (67-66-3)*

PNEC Fresh water	0,146 mg/l
PNEC Fresh water sediment	0,45 mg/kg
PNEC Marine water	0,015 mg/l
PNEC Marine sediment	0,09 mg/kg
PNEC Aquatic intermittent release	0,133 mg/l
PNEC Soil	0,56 mg/kg
PNEC Sewage treatment plant	0,048 mg/l

#### *n-butanol (71-36-3)*

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50 mg/l CTAB Spectroquant®  
T

---

PNEC Fresh water	0,082 mg/l
PNEC Fresh water sediment	0,178 mg/kg
PNEC Marine water	0,0082 mg/l
PNEC Marine sediment	0,0178 mg/kg
PNEC Aquatic intermittent release	2,25 mg/l
PNEC Sewage treatment plant	2476 mg/l
PNEC Soil	0,015 mg/kg

## 8.2 Exposure controls

### Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

### Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

#### *Eye/face protection*

Protective spectacles with side shields, arc goggles, or other approved eye protection. Safety glasses

#### *Hand protection*

full contact:

Glove material: Viton®  
Glove thickness: 0,7 mm  
Break through time: 480 min

splash contact:

Glove material: butyl-rubber  
Glove thickness: 0,7 mm  
Break through time: 10 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 890 Vitoject® (full contact), KCL 898 Butoject® (splash contact).

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50 mg/l CTAB Spectroquant®  
T

---

*Respiratory protection*  
required when vapours/aerosols are generated.

Chemically resistant gloves

### **Environmental exposure controls**

Do not let product enter drains.

---

## **SECTION 9. Physical and chemical properties**

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

Form	liquid
Colour	colourless
Odour	characteristic
Odour Threshold	No information available.
pH	No information available.
Melting point	No information available.
Boiling point	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapour pressure	No information available.
Relative vapour density	No information available.
Density	ca.1,48 g/cm <sup>3</sup> at 20 °C
Relative density	No information available.
Water solubility	No information available.
Partition coefficient: n-octanol/water	No information available.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50 mg/l CTAB Spectroquant®  
T

---

Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none

## 9.2 Other data

none

---

## SECTION 10. Stability and reactivity

### 10.1 Reactivity

See section 10.3

### 10.2 Chemical stability

heat-sensitive  
Sensitivity to light

*Stabilizer*  
ethanol

### 10.3 Possibility of hazardous reactions

Risk of explosion with:

Ammonia, Amines, nitrogen oxides, bases, Oxygen, alkali amides, organic nitro compounds, Alcohols, alkali hydroxides, strong alkalis, Fluorine, peroxi compounds, Alkaline earth metals, Alkali metals, Powdered metals

Methanol, with, alcoholates

Iron, in powder form

various alloys, sensitive to shock

Methanol, with, Sodium hydroxide

magnesium, in powder form

Oxygen, with, alkali compounds

Aluminium, in powder form

Acetone, with, alkali compounds

Potassium, sensitive to shock

sodium, sensitive to shock

Violent reactions possible with:

phosphines, bis(dimethylamino)dimethyl tin, nonmetallic hydrogen compounds, Powdered metals, Light metals, Ketones, mineral acids, Strong oxidizing agents, semimetallic hydrogen compounds

### 10.4 Conditions to avoid

Page 8 of 24



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50  
mg/l CTAB Spectroquant®  
T

---

no information available

## 10.5 Incompatible materials

rubber, various plastics

## 10.6 Hazardous decomposition products

in the event of fire: See section 5.

---

## SECTION 11. Toxicological information

### 11.1 Information on toxicological effects

#### Mixture

##### *Acute oral toxicity*

absorption

Symptoms: Nausea, Vomiting, Risk of aspiration upon vomiting., Aspiration may cause pulmonary oedema and pneumonitis.

Acute toxicity estimate: 703,86 mg/kg

Calculation method

##### *Acute inhalation toxicity*

absorption

Symptoms: Possible damages:, mucosal irritations

Acute toxicity estimate: 3,1 mg/l; 4 h ; vapour

Calculation method

##### *Acute dermal toxicity*

absorption

##### *Skin irritation*

Drying-out effect resulting in rough and chapped skin.

Mixture causes skin irritation.

##### *Eye irritation*

Mixture causes serious eye irritation.

##### *Sensitisation*

This information is not available.

##### *Germ cell mutagenicity*

This information is not available.

##### *Carcinogenicity*

This information is not available.

##### *Reproductive toxicity*

This information is not available.

##### *Teratogenicity*

This information is not available.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50  
mg/l CTAB Spectroquant®  
T

---

### *CMR effects*

Carcinogenicity:

Evidence of a carcinogenic effect.

Teratogenicity:

Evidence of harm to the unborn child.

### *Specific target organ toxicity - single exposure*

This information is not available.

### *Specific target organ toxicity - repeated exposure*

Mixture causes damage to organs through prolonged or repeated exposure.

Target Organs: Liver, Kidney

### *Aspiration hazard*

This information is not available.

## **11.2 Further information**

Dizziness, inebriation, agitation, spasms, narcosis, respiratory arrest

This substance should be handled with particular care.

Systemic effects:

After absorption:

After long-term exposure to the chemical:

drop in blood pressure, Headache, ataxia (impaired locomotor coordination),

Stomach/intestinal disorders, cardiovascular disorders

Damage to:

Liver, Kidney, Cardiac

Effect potentiated by: ethanol

Other dangerous properties can not be excluded.

---

## **SECTION 12. Ecological information**

### **Mixture**

#### **12.1 Toxicity**

No information available.

#### **12.2 Persistence and degradability**

No information available.

#### **12.3 Bioaccumulative potential**

No information available.

#### **12.4 Mobility in soil**

No information available.

#### **12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

#### **12.6 Other adverse effects**

*Additional ecological information*

Discharge into the environment must be avoided.

**SAFETY DATA SHEET**  
according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50 mg/l CTAB Spectroquant®  
T

---

**SECTION 13. Disposal considerations**

*Waste treatment methods*

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

---

**SECTION 14. Transport information**

**Land transport (ADR/RID)**

**14.1 UN number** UN 3316  
**14.2 Proper shipping name** CHEMICAL KIT  
**14.3 Class** 9  
**14.4 Packing group** III  
**14.5 Environmentally hazardous** --  
**14.6 Special precautions for user** yes  
Tunnel restriction code E

**Inland waterway transport (ADN)**

Not relevant

**Air transport (IATA)**

**14.1 UN number** UN 3316  
**14.2 Proper shipping name** CHEMICAL KIT  
**14.3 Class** 9  
**14.4 Packing group** III  
**14.5 Environmentally hazardous** --  
**14.6 Special precautions for user** no

**Sea transport (IMDG)**

**14.1 UN number** UN 3316  
**14.2 Proper shipping name** CHEMICAL KIT  
**14.3 Class** 9  
**14.4 Packing group** III  
**14.5 Environmentally hazardous** --  
**14.6 Special precautions for user** yes  
EmS F-A S-P

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50  
mg/l CTAB Spectroquant®  
T

---

## 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

THIS TRANSPORT DATA APPLIES TO THE ENTIRE PACK!

---

## SECTION 15. Regulatory information

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

#### *EU regulations*

Major Accident Hazard Legislation ZEUS SEVES3  
ACUTE TOXIC  
H2  
Quantity 1: 50 t  
Quantity 2: 200 t

Occupational restrictions Take note of Dir 94/33/EC on the protection of young people at work. Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC not regulated

Substances of very high concern (SVHC) This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of  $\geq 0.1\%$  (w/w).

Storage class 6.1C  
The data applies to the entire pack.

### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50 mg/l CTAB Spectroquant®  
T

---

## SECTION 16. Other information

### Full text of H-Statements referred to under sections 2 and 3.

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure if swallowed.

### Training advice

Provide adequate information, instruction and training for operators.

### Labelling

*Hazard pictograms*



### *Signal word*

Danger

### *Hazard statements*

H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H331 Toxic if inhaled.  
H336 May cause drowsiness or dizziness.  
H351 Suspected of causing cancer.  
H361 Suspected of damaging fertility or the unborn child.  
H372 Causes damage to organs (Liver, Kidney) through prolonged or repeated exposure if swallowed.  
H402 Harmful to aquatic life.

### *Precautionary statements*

#### Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308 + P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.	101764
Product name	Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50 mg/l CTAB Spectroquant®

---

physician.

Further information

For use in industrial installations only.

Contains: Chloroform, n-butanol

### Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

### Regional representation

This information is given on the authorised Safety Data Sheet for your country.

---

*The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.*

The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact [mlsbranding@sial.com](mailto:mlsbranding@sial.com).

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision Date 25.01.2021

Version 10.2

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

Catalogue No.	101764
Product name	Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50 mg/l CTAB Spectroquant®
	T-1K
REACH Registration Number	This product is a mixture. REACH Registration Number see section 3.

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

Identified uses	Reagent for analysis For additional information on uses please refer to the Merck Chemicals portal ( <a href="http://www.merckgroup.com">www.merckgroup.com</a> ).
-----------------	---

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

Company	Merck KGaA * 64271 Darmstadt * Germany * Phone: +49 6151 72-0
Responsible Department	LS-QHC * e-mail: <a href="mailto:prodsafe@merckgroup.com">prodsafe@merckgroup.com</a>

**1.4 Emergency telephone number** **Please contact the regional company representation in your country.****SECTION 2. Hazards identification****2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Corrosive to metals, Category 1, H290

For the full text of the H-Statements mentioned in this Section, see Section 16.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50 mg/l CTAB Spectroquant®  
T-1K

---

## 2.2 Label elements

### Labelling.(REGULATION (EC) No 1272/2008)

*Hazard pictograms*



*Signal word*  
Warning

*Hazard statements*

H290 May be corrosive to metals.

*Precautionary statements*

Prevention

P234 Keep only in original packaging.

Response

P390 Absorb spillage to prevent material damage.

Contains .?. May produce an allergic reaction.

#### Reduced labelling (≤125 ml)

*Signal word*  
Warning

## 2.3 Other hazards

None known.

---

## SECTION 3. Composition/information on ingredients

Chemical nature Aqueous solution of inorganic and organic compounds.

### 3.1 Substance

Not applicable

### 3.2 Mixture

---

## SECTION 4. First aid measures

### 4.1 Description of first aid measures

*General advice*

Show this safety data sheet to the doctor in attendance.

After inhalation: fresh air. Consult doctor if feeling unwell.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

After eye contact: rinse out with plenty of water. Remove contact lenses.

---



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.	101764
Product name	Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50 mg/l CTAB Spectroquant® T-1K

---

After swallowing: immediately make victim drink water (two glasses at most).

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

Allergic reactions

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

No information available.

---

### SECTION 5. Firefighting measures

#### 5.1 Extinguishing media

*Suitable extinguishing media*

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

*Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

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

Not combustible.

Ambient fire may liberate hazardous vapours.

#### 5.3 Advice for firefighters

*Special protective equipment for firefighters*

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

*Further information*

none

---

### SECTION 6. Accidental release measures

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

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

#### 6.2 Environmental precautions

No special precautionary measures necessary.

#### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent and neutralising material (e.g. Chemisorb® H<sup>+</sup>, Merck Art. No. 101595). Dispose of properly. Clean up affected area.

#### 6.4 Reference to other sections

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50  
mg/l CTAB Spectroquant®  
T-1K

---

Indications about waste treatment see section 13.

---

## SECTION 7. Handling and storage

### 7.1 Precautions for safe handling

#### *Hygiene measures*

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

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

#### *Storage conditions*

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorised persons.

Recommended storage temperature see product label.

The data applies to the entire pack.

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

---

## SECTION 8. Exposure controls/personal protection

### 8.1 Control parameters

### 8.2 Exposure controls

#### **Engineering measures**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

#### **Individual protection measures**

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

#### *Eye/face protection*

Protective spectacles with side shields, arc goggles, or other approved eye protection. Safety glasses

#### *Hand protection*

full contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	480 min

splash contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50 mg/l CTAB Spectroquant®  
T-1K

---

Break through time: 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

*Respiratory protection*  
required when vapours/aerosols are generated.

Chemically resistant gloves

**Environmental exposure controls**  
No special precautionary measures necessary.

---

## SECTION 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Form	liquid
Colour	blue green
Odour	odourless
Odour Threshold	Not applicable
pH	ca. 3 at 20 °C
Melting point	No information available.
Boiling point	No information available.
Flash point	Not applicable
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapour pressure	No information available.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50  
mg/l CTAB Spectroquant®  
T-1K

---

Relative vapour density	No information available.
Density	ca.1,00 g/cm <sup>3</sup> at 20 °C
Relative density	No information available.
Water solubility	No information available.
Partition coefficient: n-octanol/water	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none

## 9.2 Other data

none

---

## SECTION 10. Stability and reactivity

### 10.1 Reactivity

See section 10.3

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

Because of low concentration of the dissolved substance(s): none; exception: the generally known reaction partners of water.

The generally known reaction partners of water.

Violent reactions possible with:

### 10.4 Conditions to avoid

no information available

### 10.5 Incompatible materials

no information available

### 10.6 Hazardous decomposition products

no information available

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50  
mg/l CTAB Spectroquant®  
T-1K

---

## SECTION 11. Toxicological information

### 11.1 Information on toxicological effects

#### Mixture

##### *Acute oral toxicity*

This information is not available.

##### *Acute inhalation toxicity*

This information is not available.

##### *Acute dermal toxicity*

This information is not available.

##### *Skin irritation*

This information is not available.

##### *Eye irritation*

This information is not available.

##### *Sensitisation*

Mixture may produce an allergic reaction.

##### *Germ cell mutagenicity*

This information is not available.

##### *Carcinogenicity*

This information is not available.

##### *Reproductive toxicity*

This information is not available.

##### *Teratogenicity*

This information is not available.

##### *Specific target organ toxicity - single exposure*

This information is not available.

##### *Specific target organ toxicity - repeated exposure*

This information is not available.

##### *Aspiration hazard*

This information is not available.

### 11.2 Further information

Hazardous properties cannot be excluded, but are relatively improbable due to the low concentration of the dissolved substance(s).

Handle in accordance with good industrial hygiene and safety practice.

---

## SECTION 12. Ecological information

#### Mixture

### 12.1 Toxicity

No information available.

### 12.2 Persistence and degradability

No information available.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50 mg/l CTAB Spectroquant®  
T-1K

---

## 12.3 Bioaccumulative potential

No information available.

## 12.4 Mobility in soil

No information available.

## 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

## 12.6 Other adverse effects

*Additional ecological information*

No ecological problems are to be expected when the product is handled and used with due care and attention.

---

## SECTION 13. Disposal considerations

*Waste treatment methods*

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

---

## SECTION 14. Transport information

### Land transport (ADR/RID)

<b>14.1 UN number</b>	UN 3316
<b>14.2 Proper shipping name</b>	CHEMICAL KIT
<b>14.3 Class</b>	9
<b>14.4 Packing group</b>	III
<b>14.5 Environmentally hazardous</b>	--
<b>14.6 Special precautions for user</b>	yes
Tunnel restriction code	E

### Inland waterway transport (ADN)

Not relevant

### Air transport (IATA)

<b>14.1 UN number</b>	UN 3316
<b>14.2 Proper shipping name</b>	CHEMICAL KIT
<b>14.3 Class</b>	9
<b>14.4 Packing group</b>	III
<b>14.5 Environmentally hazardous</b>	--

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50 mg/l CTAB Spectroquant®  
T-1K

---

**14.6 Special precautions for user** no

## Sea transport (IMDG)

**14.1 UN number** UN 3316

**14.2 Proper shipping name** CHEMICAL KIT

**14.3 Class** 9

**14.4 Packing group** III

**14.5 Environmentally hazardous** --

**14.6 Special precautions for user** yes

EmS F-A S-P

## 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

THIS TRANSPORT DATA APPLIES TO THE ENTIRE PACK!

---

## SECTION 15. Regulatory information

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

#### EU regulations

Major Accident Hazard ZEU\_SEVES3  
Legislation Not applicable

Occupational restrictions Take note of Dir 94/33/EC on the protection of young people at work.

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC not regulated

Substances of very high concern (SVHC) This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of  $\geq 0.1\%$  (w/w).

Storage class 6.1C

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 101764  
Product name Surfactants (cation.) Cell Test Method: photometric 0.05 - 1.50 mg/l CTAB Spectroquant®  
T-1K

---

The data applies to the entire pack.

## 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

---

## SECTION 16. Other information

### Full text of H-Statements referred to under sections 2 and 3.

H290 May be corrosive to metals.

### Training advice

Provide adequate information, instruction and training for operators.

### Labelling

*Hazard pictograms*



*Signal word*

Warning

*Hazard statements*

H290 May be corrosive to metals.

Further information

Contains .?. May produce an allergic reaction.

### Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

### Regional representation

This information is given on the authorised Safety Data Sheet for your country.

---

*The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.*

The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact [mlsbranding@sial.com](mailto:mlsbranding@sial.com).