Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 23.04.2012 Version number 35 Revision: 23.04.2012

* 1 Identification of the substance/mixture and of the company/undertaking

· **1.1 Product identifier**

· **Product name: Total Alkalinity**

· **Catalog number:** 00515329, (4)515320(BT), (4)515321(BT), 515323(0), 505321

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

· **Application of the substance / the preparation:** Reagent for water analysis

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

· **Supplier:**
Tintometer GmbH
Schleefstr. 8-12
DE - 44287 Dortmund
Made in Germany
www.lovibond.com
phone: +49 231 945100
e-mail: sales@tintometer.de

· **Informing department:**
e-mail: produktsicherheit@tintometer.de
Product Safety Department

· **Contact for technical details:**
Technical Department
e-mail: technik@tintometer.de

· **1.4 Emergency telephone number:**
Poison Center Berlin, Germany
phone: 0049-30 30686 790

* 2 Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**

GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Xi; Irritant

R41: Risk of serious damage to eyes.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms** GHS05

· **Signal word** Danger

· **Hazard-determining components of labelling:**
sodium bisulfate

· **Hazard statements**
H318 Causes serious eye damage.

· **Precautionary statements**
P280 Wear protective gloves/protective clothing/eye protection/face protection.

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P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/physician.

* 3 Composition/information on ingredients

· **3.2 Chemical characterization: Mixtures**
· **Description:** Mixture of organic and inorganic compounds

· **Dangerous components:**

CAS: 7681-38-1 EINECS: 231-665-7 Index number: 016-046-00-X	sodium bisulfate	Xi R41 Eye Dam. 1, H318	5-10%

· **REACH - Pre-registered substances** All components are REACH pre-registered.
· **Additional information** For the wording of the listed risk phrases refer to section 16.

* 4 First aid measures

· **4.1 Description of first aid measures**
· **General information** Instantly remove any clothing soiled by the product.
· **After inhalation** Supply fresh air.
· **After skin contact** Instantly wash with water and soap and rinse thoroughly.
· **After eye contact**
Rinse opened eye for several minutes (at least 10 min) under running water.
Call a doctor immediately.
· **After swallowing**
Seek medical treatment.
Rinse out mouth and then drink 1-2 glasses of water.
· **4.2 Most important symptoms and effects, both acute and delayed**
after inhalation:
breathing difficulty
coughing
after swallowing:
gastric or intestinal trouble
After swallowing of large amounts:
fatigue
ataxia (impaired locomotor coordination)
drop in temperature
cramps
· **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

* 5 Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
· **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
Sulphur oxides (SOx)
Nitrogen oxides (NOx)
Sodium oxide
· **5.3 Advice for firefighters**
· **Protective equipment:** Wear self-contained breathing apparatus.
· **Additional information**
Collect contaminated fire fighting water separately. It must not enter drains.

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Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Keep away from ignition sources
· **6.2 Environmental precautions:** Do not allow product to reach sewage system or water bodies.
· **6.3 Methods and material for containment and cleaning up:**
Dispose of contaminated material as waste according to item 13.
Collect mechanically.
Ensure adequate ventilation.
· **6.4 Reference to other sections**
See Section 8 for information on personal protection equipment.

* 7 Handling and storage

· **7.1 Precautions for safe handling** Prevent formation of dust.
· **Information about protection against explosions and fires:** The product is not flammable

· **7.2 Conditions for safe storage, including any incompatibilities**
· **Storage**
· **Requirements to be met by storerooms and containers:** Store in cool location.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:**
Protect from heat and direct sunlight.
Store under dry conditions.
Protect from humidity and keep away from water.
This product is hygroscopic.
Protect from the effects of light.
· **Recommended storage temperature:** 20°C +/- 5°C
· **Storage class** 13
· **7.3 Specific end use(s)** No further relevant information available.

* 8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **8.1 Control parameters**

· **Components with limit values that require monitoring at the workplace:**	
9004-34-6 cellulose (80-90%)	
WEL (Great Britain)	Short-term value: 20* mg/m³ Long-term value: 10* 4** mg/m³ *inhalable dust **respirable
14807-96-6 Talc (Mg3H2(SiO3)4) (≤ 2.5%)	
WEL (Great Britain) OEL (Sweden)	Long-term value: 1 mg/m³ Long-term value: 2* 1** mg/m³ *totaldamm **respirabelt damm

· **Additional information:** The lists that were valid during the compilation were used as basis.

· **8.2 Exposure controls**
· **Personal protective equipment**
· **General protective and hygienic measures**
Take off immediately all contaminated clothing

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Wash hands during breaks and at the end of the work.
Avoid contact with the eyes.
Do not eat, drink or smoke while working.

· **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
· **Recommended filter device for short term use:** Filter P1
· **Protection of hands:**
Preventive skin protection by use of skin-protecting agents is recommended.
After use of gloves apply skin-cleaning agents and skin cosmetics.
· **Material of gloves**
nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.11 mm
· **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
Value for the permeation: Level ≥ 1 (>10 min)
· **Eye protection:**
use against the effects of fumes / dust
Tightly sealed safety glasses.
· **Body protection:** Protective work clothing.

* 9 Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**	
· **Appearance:**	
Form:	Tablets
Colour:	Red
· **Odour:**	Odourless
· **pH-value (1.66 g/l) at 20°C:**	2.5
· **Melting point/Melting range:**	Not determined
· **Boiling point/Boiling range:**	Not determined
· **Flash point:**	Not applicable
· **Danger of explosion:**	Product is not explosive.
· **Density**	Not determined
· **Solubility in / Miscibility with**	
Water:	Partly soluble
· **Solvent content:**	
Organic solvents:	0.0 %
Solids content:	100.0 %
· **9.2 Other information**	No further relevant information available.

* 10 Stability and reactivity

· **Reactivity**
· **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
· **Possibility of hazardous reactions**
Reacts with alcohols
Forms hydrogen in aqueous solution with metals
Liberates acid in contact with water or alcohol.
Reacts with light alloys to form hydrogen
· **Conditions to avoid** No further relevant information available.

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· **Incompatible materials:**
alkalis
metals
alcohols
oxidizing agents
· **Hazardous decomposition products:**
Sulphur oxides (SOx)
see chapter 5

* 11 Toxicological information

· **11.1 Information on toxicological effects**
· **Acute toxicity:** Quantitative data on the toxicity of the preparation are not available.

· **LD/LC50 values that are relevant for classification:**		
7681-38-1 sodium bisulfate		
Oral	LD50	2490 mg/kg (rat)

· **Primary irritant effect:**
· **on the skin:** slight irritations possible
· **on the eye:** Strong irritant with the danger of severe eye injury.
· **Sensitization:** No sensitizing effect known.

· **Additional toxicological information:** Irritant
· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)** no data available

* 12 Ecological information

· **12.1 Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **12.2 Persistence and degradability** No further relevant information available.

· **Other information:** Quantitative data on the ecological effect of this product are not available.
· **12.3 Bioaccumulative potential** No further relevant information available.
· **Behaviour in environmental systems:**
· **12.4 Mobility in soil** No further relevant information available.

· **Ecotoxical effects:**
· **Remark:**
Toxic for fish:
NH_4^+ > 0.3 mg/l
sulphates > 7 g/l
· **Bacterial toxicity:** sulphates toxic > 2.5 g/l
· **Additional ecological information:**

· **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment acc. VwVwS Annex 4): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralized.
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
· **vPvB assessments:** no data available
· **12.6 Other adverse effects** No further relevant information available.

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13 Disposal considerations

· **13.1 Waste treatment methods**
· **Recommendation** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**	
16 05 06*	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals

· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.
· **Recommended cleaning agent:** Water, if necessary with cleaning agent.

* 14 Transport information

· **14.1 UN-Number**	
· **ADR, ADN, IMDG, IATA**	Void
· **14.2 UN proper shipping name**	
· **ADR, ADN, IMDG, IATA**	Void
· **14.3 Transport hazard class(es)**	
· **ADR, ADN, IMDG, IATA**	
· **Class**	Void
· **14.4 Packing group**	
· **ADR, IMDG, IATA**	Void
· **14.5 Environmental hazards:**	
· **Marine pollutant:**	No
· **14.6 Special precautions for user**	Not applicable.
· **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional information:**	Not dangerous according to the above specifications.

* 15 Regulatory information

· **15.4 Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **National regulations**

· **Information about limitation of use:** Employment restrictions concerning young persons must be observed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**
H318 Causes serious eye damage.

R41 Risk of serious damage to eyes.

· **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods

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IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

· **Sources** Data arise from reference works and literature.

· *** Data compared to the previous version altered.**