

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

- **Product identifier**
- **Trade name:** TSA Plus DIG
- **Product number:** NEL748001KT, NEL748B001KT, NEL748E001KT
- **Application of the substance / the preparation** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
PerkinElmer Life and Analytical Sciences  
710 Bridgeport Avenue  
Shelton, CT 06484
- **Information department:**  
Technical Support  
800-762-4000
- **Emergency telephone number:**  
If inside USA, call CHEMTREC at 1-800-424-9300  
If outside USA, call CHEMTREC at 1-703-527-3887

### 2 Composition/information on ingredients

- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

51-67-2	4-Hydroxyphenylethylamine ⚠ H315; H319; H335	25-50%
1303-96-4	Disodium tetraborate, decahydrate ⚠ H360	1-2.5%
11113-50-1	boric acid, crude natural, containing not more than 85 per cent of H3BO3 calculated on the dry weight ⚠ H360	1-2.5%

· **Additional Components**

7647-14-5	sodium chloride	2.5-10%
7732-18-5	Water	25-50%

· **SVHC**

1303-96-4	Disodium tetraborate, decahydrate
11113-50-1	boric acid, crude natural, containing not more than 85 per cent of H3BO3 calculated on the dry weight

### 3 Hazards identification

- **Classification of the substance or mixture**



GHS08 Health hazard

H360 May damage fertility or the unborn child.



GHS07

H315 Causes skin irritation.

H319 Causes serious eye irritation.

# Material Safety Data Sheet

acc. to ISO 11014

Printing date 01/18/2012

Reviewed on 01/18/2012

Trade name: TSA Plus DIG

(Contd. of page 1)

H335 May cause respiratory irritation.

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



Irritant

Irritating to eyes, respiratory system and skin.

· **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of international guidelines.

· **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· **Label elements**

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Code letter and hazard designation of product:**



Irritant

· **Risk phrases:**

Irritating to eyes, respiratory system and skin.

· **Safety phrases:**

Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable protective clothing and gloves.

This material and its container must be disposed of as hazardous waste.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = \*1

Fire = 0

Reactivity = 0

## 4 First aid measures

· **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:** If symptoms persist consult doctor.

## 5 Firefighting measures

· **Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

(Contd. on page 3)

# Material Safety Data Sheet

acc. to ISO 11014

Printing date 01/18/2012

Reviewed on 01/18/2012

Trade name: TSA Plus DIG

(Contd. of page 2)

- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Protective equipment:** Wear self-contained respiratory protective device.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **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.

- **Components with limit values that require monitoring at the workplace:**

1303-96-4 Disodium tetraborate, decahydrate

REL	5 mg/m <sup>3</sup>
TLV	Short-term value: 6* mg/m <sup>3</sup> Long-term value: 2* mg/m <sup>3</sup> *as inhalable fraction

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from food and beverages.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Respiratory protection:**  
In case of brief or low exposure use an approved cartridge filter. In case of intensive or longer exposure use SCBA.  
Suitable respiratory protective device recommended.

(Contd. on page 4)

USA

# Material Safety Data Sheet

acc. to ISO 11014

Printing date 01/18/2012

Reviewed on 01/18/2012

Trade name: TSA Plus DIG

(Contd. of page 3)

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

· **General Information**

· **Appearance:**

· <b>Form:</b>	Fluid
· <b>Color:</b>	According to product specification
· <b>Odor:</b>	Characteristic
· <b>Odour threshold:</b>	Not determined.

· **pH-value:** N/A

· **Change in condition**

· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:**

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.

· **Vapor pressure at 20°C (68 °F):** 23 hPa (17 mm Hg)

· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.

(Contd. on page 5)

USA

# Material Safety Data Sheet

acc. to ISO 11014

Printing date 01/18/2012

Reviewed on 01/18/2012

Trade name: TSA Plus DIG

(Contd. of page 4)

· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.
· <b>Segregation coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	38.0 %
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant

## 12 Ecological information

- **Acquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Ecotoxicological effects:** N/A
- **Other information:** N/A

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Must be specially treated adhering to official regulations.

(Contd. on page 6)

USA

# Material Safety Data Sheet

acc. to ISO 11014

Printing date 01/18/2012

Reviewed on 01/18/2012

Trade name: TSA Plus DIG

(Contd. of page 5)

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

· <b>UN-Number</b> · DOT, ADR, IMDG, IATA	Void
· <b>UN proper shipping name</b> · DOT, ADR, IMDG, IATA	Void
· <b>Transport hazard class(es)</b> · DOT, ADR, IMDG, IATA · Class	Void
· <b>Packing group</b> · DOT, ADR, IMDG, IATA	Void
· <b>Environmental hazards:</b> · Marine pollutant:	No
· <b>Special precautions for user</b>	Not applicable.
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>UN "Model Regulation":</b>	-

## 15 Regulatory information

· <b>Sara</b>
· <b>Section 355 (extremely hazardous substances):</b> None of the ingredients is listed.
· <b>Section 313 (Specific toxic chemical listings):</b> None of the ingredients is listed.
· <b>TSCA (Toxic Substances Control Act):</b>
7647-14-5 sodium chloride
1303-96-4 Disodium tetraborate, decahydrate
11113-50-1 boric acid, crude natural, containing not more than 85 per cent of H3BO3 calculated on the dry weight
7732-18-5 Water
· <b>Proposition 65</b>
· <b>Chemicals known to cause cancer:</b> None of the ingredients is listed.
· <b>Chemicals known to cause reproductive toxicity for females:</b> None of the ingredients is listed.
· <b>Chemicals known to cause reproductive toxicity for males:</b> None of the ingredients is listed.

(Contd. on page 7)

# Material Safety Data Sheet

acc. to ISO 11014

Printing date 01/18/2012

Reviewed on 01/18/2012

Trade name: TSA Plus DIG

(Contd. of page 6)

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

1303-96-4 | Disodium tetraborate, decahydrate

A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**



Irritant

· **Risk phrases:**

Irritating to eyes, respiratory system and skin.

· **Safety phrases:**

Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable protective clothing and gloves.

This material and its container must be disposed of as hazardous waste.

## 16 Other information

The information provided in this Material Safety Data Sheet is based on our present knowledge, and believed to be correct at the date of publication. However, no representation is made concerning its accuracy and completeness. It is intended as guidance only, and is not to be considered a warranty or quality specification. All materials may present unknown hazards, and should be used with caution. Although certain hazards are described, we cannot guarantee that these are the only hazards which exist. PerkinElmer, Inc. shall not be held liable for any damage resulting from handling or from contact with the product.

· **Department issuing MSDS: EHS**

· **Contact:**

Technical Support  
800-762-4000

· **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)

(Contd. on page 8)

**Material Safety Data Sheet**  
**acc. to ISO 11014**

Printing date 01/18/2012

Reviewed on 01/18/2012

**Trade name: TSA Plus DIG**

(Contd. of page 7)

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*ICAO: International Civil Aviation Organization*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

USA