

## Sodium tetraborate decahydrate

S9640-6X500G

Version 1.5

Revision Date 17.12.2022

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

#### 1.1. Product identifier

Product name : Sodium tetraborate decahydrate  
SDS-number : 000000020884  
Type of product : Substance  
Remarks : SDS according to Art. 31 of Regulation (EC) 1907/2006.  
Chemical name : disodium tetraborate decahydrate  
Index-No. : 005-011-00-4  
REACH Registration Number : no data available

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

Use of the Substance/Mixture : Laboratory chemicals  
Uses advised against : none

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

Company	: Honeywell International Inc. 115 Tabor Road 07950-2546 Morris Plains USA	Honeywell International, Inc. 115 Tabor Road Morris Plains, NJ 07950-2546 USA
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Telephone :  
For further information, please contact: : [SafetyDataSheet@Honeywell.com](mailto:SafetyDataSheet@Honeywell.com)

#### 1.4. Emergency telephone number

Emergency telephone number : +1-703-527-3887 (ChemTrec-Transport)  
+1-303-389-1414 (Medical)  
Country based Poison : see chapter 15.1

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### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Reproductive toxicity Category 1B  
H360FD May damage fertility. May damage the unborn child.

#### 2.2. Label elements

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

Hazard pictograms



Signal word

: Danger

Hazard statements

: H360FD

May damage fertility. May damage the unborn child.

Precautionary statements

: P201  
P280  
  
P308 + P313

Obtain special instructions before use.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF exposed or concerned: Get medical advice/ attention.

Special labelling of certain products:

: Restricted to professional users.

#### 2.3. Other hazards

This product may cause adverse reproductive effects.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

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Chemical name	CAS-No. Index-No. REACH Registration Number EC-No.	Classification 1272/2008	Concentration	Remarks
disodium tetraborate decahydrate	1303-96-4 005-011-00-4 215-540-4	Repr. 1B; H360FD	100 %	

### 3.2. Mixture

Not applicable

Occupational Exposure Limit(s), if available, are listed in Section 8.

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

*General advice:*

Immediately take off contaminated clothing and rinse body with plenty of water. First aider needs to protect himself.

*Inhalation:*

If inhaled, remove to fresh air. If symptoms persist, call a physician.

*Skin contact:*

After contact with skin, wash immediately with plenty of water. If symptoms persist, call a physician.

*Eye contact:*

Rinse thoroughly with plenty of water, also under the eyelids. Protect unharmed eye. If eye irritation persists, consult a specialist.

*Ingestion:*

When swallowed, allow water to be drunk. Call a physician immediately.

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

No data available

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

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Treat symptomatically.

See Section 11 for more detailed information on health effects and symptoms.

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

*Suitable extinguishing media:*

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

*Extinguishing media which shall not be used for safety reasons:*

High volume water jet

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

Hazardous decomposition products formed under fire conditions.  
The product itself does not burn.

#### 5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.  
Do not use a solid water stream as it may scatter and spread fire. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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### SECTION 6: Accidental release measures

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

Ensure adequate ventilation. Wear personal protective equipment. Unprotected persons must be kept away. Avoid contact with skin, eyes and clothing.

#### 6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so.

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

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Use mechanical handling equipment.  
Pick for disposal in tightly closed containers

### 6.4. Reference to other sections

For personal protection see section 8.

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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

*Advice on safe handling:*

Perform filling operations only at stations with exhaust ventilation facilities. Avoid formation of aerosol. Use product only in closed system. Wear personal protective equipment. Avoid inhalation, ingestion and contact with skin and eyes.

*Advice on protection against fire and explosion:*

Normal measures for preventive fire protection.

*Hygiene measures:*

Keep working clothes separately. Separate rooms are required for washing, showering and changing clothes.

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

*Further information on storage conditions:*

Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Do not leave vessels/containers open. Avoid product residues in/on containers.

### 7.3. Specific end use(s)

no additional data available

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### *Occupational exposure limits:*

Components	Basis / Value type	Value / Form of exposure	Exceeding Factor	Remarks
disodium tetraborate decahydrate	EH40 OES TWA	5 mg/m <sup>3</sup>		
disodium tetraborate decahydrate	EH40 WEL TWA	5 mg/m <sup>3</sup>		

TWA - Time weighted average

##### **DNEL/ PNEC-Values**

Component	End-use/impact	Exposure duration	Value	Exposure routes	Remarks
disodium tetraborate decahydrate	Workers / Long-term systemic effects		6,7 mg/m <sup>3</sup>	Inhalation	
disodium tetraborate decahydrate	Workers / Long-term systemic effects		316,4mg/kg bw/d	Skin contact	
disodium tetraborate decahydrate	Consumers / Long-term systemic effects		3,4 mg/m <sup>3</sup>	Inhalation	
disodium tetraborate decahydrate	Consumers / Long-term systemic effects		159,5mg/kg bw/d	Skin contact	
disodium tetraborate decahydrate	Consumers / Long-term systemic effects		0,79mg/kg bw/d	Ingestion	
disodium tetraborate	Consumers /		0,79mg/kg	Ingestion	

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decahydrate	Acute systemic effects		bw/d		
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Component	Environmental compartment / Value	Remarks
disodium tetraborate decahydrate; borax decahydrate	Fresh water: 2,9 mg/l	
disodium tetraborate decahydrate; borax decahydrate	Marine water: 2,9 mg/l	
disodium tetraborate decahydrate; borax decahydrate	Sewage treatment plant: 10 mg/l	
disodium tetraborate decahydrate; borax decahydrate	Soil: 5,7 mg/kg dw	

### 8.2. Exposure controls

#### Occupational exposure controls

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511; safety shoes EN-ISO 20345.

Do not breathe dust.

Avoid exposure - obtain special instructions before use.

#### Personal protective equipment

##### *Respiratory protection:*

In the case of dust or aerosol formation use respirator with an approved filter.

##### *Hand protection:*

Glove material: Natural Latex

Break through time: > 480 min

Glove thickness: 0,6 mm

Lapren®706

Gloves must be inspected prior to use.

Replace when worn.

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Remarks:Supplementary note: The specifications are based on information and tests from similar substances by analogy.  
Due to varying conditions ( e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.  
Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer recommends to use the chemical protective glove in practice not longer than 50% of the recommended permeation time.  
Manufacturer's directions for use should be observed because of great diversity of types .  
Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

*Eye protection:*

Safety glasses with side-shields

*Skin and body protection:*

Protective suit

Wear suitable protective equipment.

### Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

## SECTION 9: Physical and chemical properties

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

Physical state	:	solid
Colour	:	colourless
Odour	:	odourless
molecular weight	:	381,37 g/mol
Melting point/range	:	$\geq 62$ °C Elimination of water of crystallisation
Melting point/range	:	742 °C anhydrous substance
Boiling point/boiling range	:	1.575 °C



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anhydrous substance

Flammability	:	The product is not flammable.
Upper explosion limit	:	Not applicable
Lower explosion limit	:	Not applicable
Flash point	:	Not applicable
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	No decomposition if used as directed. Loss of water of crystallization on heating.
pH	:	9 - 10 at 20 °C (as aqueous solution)
Viscosity, kinematic	:	No data available
Water solubility	:	49,74 g/l at 20 °C
Partition coefficient: n-octanol/water	:	No data available
Vapour pressure	:	negligible
Density	:	ca. 1,7 g/cm <sup>3</sup>
Bulk density	:	ca. 700 kg/m <sup>3</sup>
Relative vapour density	:	No data available

### 9.2 Other Information

Evaporation rate	:	No data available
Viscosity, dynamic	:	No data available

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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Stable under normal conditions.

#### 10.2. Chemical stability

No decomposition if used as directed.  
Loss of water of crystallization on heating.

#### 10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

#### 10.4. Conditions to avoid

Protect from contamination.  
To avoid thermal decomposition, do not overheat.

#### 10.5. Incompatible materials

Strong reducing agents  
Strong oxidizing agents

#### 10.6. Hazardous decomposition products

Boron oxides

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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

*Acute oral toxicity:*

LD50

Species: Rat

Value: > 2.500 mg/kg

Method: OECD Test Guideline 401

*Acute dermal toxicity:*

LD50

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Species: Rabbit  
Value: > 2.000 mg/kg  
No deaths

*Acute inhalation toxicity:*

LC50  
Species: Rat  
Value: > 2,04 mg/l  
Exposure time: 4 h  
Technically maximum achievable concentration.  
No deaths

*Skin irritation:*

Species: Rabbit  
Result: No skin irritation  
Method: OECD Test Guideline 404

*Eye irritation:*

No data available

*Respiratory or skin sensitisation:*

Species: Guinea pig  
Result: Not a skin sensitizer.  
Method: OECD Test Guideline 406

*Carcinogenicity:*

Note: Not classified due to data which are conclusive although insufficient for classification.

*Germ cell mutagenicity:*

Note: Not classified due to data which are conclusive although insufficient for classification.

*Reproductive toxicity:*

Remarks: Classification based on Annex VI of regulation 1272/2008/EC.

*Aspiration hazard:*

No data available

### 11.2. Information on other hazards

Endocrine disrupting properties  
No data available

*Other information:*

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This product may cause adverse reproductive effects.

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### SECTION 12: Ecological information

#### 12.1. Toxicity

*Toxicity to fish:*

Not classified due to data which are conclusive although insufficient for classification.

*Toxicity to aquatic plants:*

Not classified due to data which are conclusive although insufficient for classification.

*Toxicity to aquatic invertebrates:*

Not classified due to data which are conclusive although insufficient for classification.

#### 12.2. Persistence and degradability

*Biodegradability:*

The methods for determining biodegradability are not applicable to inorganic substances.

#### 12.3. Bioaccumulative potential

No data available

#### 12.4. Mobility in soil

No data available

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

No data available

#### 12.6. Endocrine disrupting properties

No data available

#### 12.7. Other adverse effects

No data available

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### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

*Product:*

Dispose according to legal requirements.

*Packaging:*

Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

*Further information:*

Provisions relating to waste:

EC Directive 2006/12/EC; 2008/98/EEC

Regulation No. 1013/2006

For personal protection see section 8.

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### SECTION 14: Transport information

#### 14.1 UN number

ADR/RID:Not dangerous goods    IMDG:Not dangerous goods    IATA:Not dangerous goods

#### 14.2 UN proper shipping name

ADR/RID:Not dangerous goods

IMDG:Not dangerous goods

IATA:Not dangerous goods

#### 14.3 Transport hazard class(es)

#### 14.4 Packaging group

#### 14.5 Environmental hazards

ADR/RID:no

Marine pollutant: no

#### 14.6 Special precautions for user

No data available

#### 14.7 Maritime transport in bulk according to IMO instruments

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No data available

**SECTION 15: Regulatory information**

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

Basis	Value	Remarks
Directive 2012/18/EC		Not applicable
Regulation (EC) No. 1907/2006, Annex XVII		This product contains an ingredient according to Annex XVII of the REACH Regulation 1907/2006/EC.
Substances of very high concern (SVHC)		This product does not contain substances of very high concern according to Regulation (EC) No Article 57 above the respective regulatory 1907/2006 (REACH), concentration limit of $\geq 0.1\%$ (w/w).

**Poison Control Center**

Country	Phone Number
Austria	+4314064343
Belgium	070 245245
Bulgaria	(+)35929154233
Croatia	(+3851)23-48-342
Cyprus	+357 2240 5611
Czech Republic	+420224919293; +420224915402
Denmark	82121212
Estonia	16662; (+372)6269390
Finland	9471977
France	+33(0)145425959
Greece	+30 210 779 3777

Country	Phone Number
Liechtenstein	+41 442515151
Lithuania	+370532362052
Luxembourg	070245245; (+352)80002-5500
Malta	+356 2395 2000
Netherlands	030-2748888
Norway	22591300
Poland	+48 42 25 38 400
Portugal	800250250
Romania	+40 21 318 3606
Slovakia (NTIC)	+421 2 54 774 166
Slovenia	+386 1 400 6051

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Hungary	(+36-80)201-199
Iceland	5432222
Ireland	+353(1)8092166
Italy	0382 24444
Germany	Berlin : 030/19240
	Bonn : 0228/19240
	Erfurt : 0361/730730
	Freiburg : 0761/19240
	Göttingen : 0551/19240
	Homburg : 06841/19240
	Mainz : 06131/19240
Munich : 089/19240	
Latvia	+37167042473

Spain	+34915620420
Sweden	112 (begär Giftinformation);+46104566786
Switzerland	145
United Kingdom	(+44) 844 892 0111

**Other inventory information**

US. Toxic Substances Control Act  
On TSCA Inventory

Australia. Inventory of Industrial Chemicals (AIIC), as amended  
On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)  
All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List  
On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI)  
On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS)  
On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC)  
On the inventory, or in compliance with the inventory

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New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand  
On the inventory, or in compliance with the inventory

Taiwan Chemical Substance Inventory (TCSI)  
On the inventory, or in compliance with the inventory

### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

### Text of H-statements referred to under heading 3

disodium tetraborate : H360FD May damage fertility. May damage the unborn  
decahydrate child.

### Further information

All directives and regulations refer to amended versions.  
Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

#### Abbreviations:

EC European Community  
CAS Chemical Abstracts Service  
DNEL Derived no effect level  
PNEC Predicted no effect level  
vPvB Very persistent and very bioaccumulative substance  
PBT Persistent, bioaccumulative and toxic substance

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user.

This information should not constitute a guarantee for any specific product properties.



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