

Sodium tetraborate decahydrate

S9640-4X2.5KG

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

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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Control Center

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.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray
Foam
Carbon dioxide (CO₂)
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.

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.

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 ³		
disodium tetraborate decahydrate	EH40 WEL TWA	5 mg/m ³		

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 ³	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 ³	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	:	≥ 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 ³
Bulk density	:	ca. 700 kg/m ³
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

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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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.

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 und 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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