

Sodium thiosulfate pentahydrate

31459-1KG

Version 1.4

Revision Date 17.12.2022

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

1.1. Product identifier

Product name : Sodium thiosulfate pentahydrate
SDS-number : 000000012967
Type of product : Substance
Remarks : Document according to Art. 32 of Regulation (EC) 1907/2006.
Chemical name : Sodium thiosulfate-5-hydrate
CAS-No. : 10102-17-7
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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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Not a hazardous substance or mixture.

2.2. Label elements

REGULATION (EC) No 1272/2008

Not a hazardous substance or mixture.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.1. Substance

Chemical name	CAS-No. Index-No. REACH Registration Number EC-No.	Classification 1272/2008	Concentration	Remarks
Sodium thiosulfate-5-hydrate	10102-17-7 231-867-5		100 %	N.C.*

N.C.* - Non-hazardous substance - for information only

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.

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SECTION 4: First aid measures

4.1 Description of first aid measures

General advice:

Move out of dangerous area. Show this safety data sheet to the doctor in attendance.

Inhalation:

Call a physician if irritation develops or persists.

Skin contact:

Wash off with soap and water.

Eye contact:

Protect unharmed eye. Rinse thoroughly with plenty of water, also under the eyelids. Consult a physician.

Ingestion:

A person suspected to have swallowed the substance who is conscious should be given water to drink. Take to a doctor immediately together with this card

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

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 (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

Fire may cause evolution of:
Sulphur oxides

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit.
No unprotected exposed skin areas.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Do not use a solid water stream as it may scatter and spread fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment. Unprotected persons must be kept away.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so.

6.3. Methods and materials for containment and cleaning up

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

6.4. Reference to other sections

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For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling:

Exhaust ventilation at the object is necessary. Wear personal protective equipment.

Advice on protection against fire and explosion:

Normal measures for preventive fire protection.

Hygiene measures:

Keep working clothes separately.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:

Keep in original packaging, tightly closed.

Further information on storage conditions:

Keep in a dry, cool place. Do not leave vessels/containers open Avoid product residues in/on containers.

7.3. Specific end use(s)

no additional data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

DNEL/ PNEC-Values

Component	End-use/impact	Exposure duration	Value	Exposure routes	Remarks
Sodium thiosulfate-5-	Workers /		374 mg/m3	Inhalation	

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hydrate	Long-term systemic effects				
Sodium thiosulfate-5-hydrate	Consumers / Long-term systemic effects		110 mg/m3	Inhalation	
Sodium thiosulfate-5-hydrate	Consumers / Long-term systemic effects		14mg/kg bw/d	Ingestion	

Component	Environmental compartment / Value	Remarks
Sodium thiosulfate-5-hydrate	Fresh water: 0,8 mg/l	Assessment factor: 10
Sodium thiosulfate-5-hydrate	Marine water: 0,08 mg/l	Assessment factor: 100
Sodium thiosulfate-5-hydrate	Sewage treatment plant: 102,6 mg/l	Assessment factor: 10

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.

Wash hands before breaks and at the end of workday.

Engineering measures

Use with local exhaust ventilation.

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

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Break through time: > 480 min

Glove thickness: 0,6 mm

Lapren®706

Gloves must be inspected prior to use.

Replace when worn.

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

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	:	248,18 g/mol
Melting point/range	:	48 °C Decomposition

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Boiling point/boiling range	:	Not applicable Decomposes on heating.
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	:	Loss of water of crystallization on heating.
pH	:	6,0 - 7,5 Concentration: 100 g/l at 25 °C
pH	:	6,0 - 8,4 Concentration: 100 g/l at 20 °C
Auto-ignition temperature	:	not auto-flammable
Viscosity, kinematic	:	Not applicable
Water solubility	:	794 g/l at 0 °C
Partition coefficient: n-octanol/water	:	No data available
Vapour pressure	:	No data available
Density	:	1,73 g/cm ³ at 20 °C
Bulk density	:	ca. 1.000 kg/m ³
Relative vapour density	:	No data available

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9.2 Other Information

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Evaporation rate : No data available

Viscosity, dynamic : Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if stored and applied as directed.

10.2. Chemical stability

Loss of water of crystallization on heating.

10.3. Possibility of hazardous reactions

Hazardous decomposition products formed under fire conditions.

10.4. Conditions to avoid

Protect from heat/overheating.

10.5. Incompatible materials

Incompatible with strong acids, oxidizers and nitrates.

10.6. Hazardous decomposition products

Sulphur dioxide

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

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

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Acute dermal toxicity:

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

Acute inhalation toxicity:

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

Skin irritation:

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

Eye irritation:

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

Respiratory or skin sensitisation:

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

Aspiration hazard:

Not applicable

11.2. Information on other hazards

Endocrine disrupting properties

No data available

Other information:

Toxicological data applies only to the water free substance.

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

No data available

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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

Chemical Oxygen Demand : Value: 322 mg/g
(COD)

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

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

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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

No data available

SECTION 15: Regulatory information

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

Basis	Value	Remarks
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

Country	Phone Number
Liechtenstein	+41 442515151
Lithuania	+370532362052
Luxembourg	070245245; (+352)80002-5500
Malta	+356 2395 2000

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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
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

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
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

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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

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

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

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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.
