

# SAFETY DATA SHEET

Version 6.8 Revision Date 09/12/2025 Print Date 09/13/2025

#### **SECTION 1. IDENTIFICATION**

#### 1.1 Product identifiers

Product name : Sodium sulfate decahydrate

Product Number : 403008 Brand : SIGALD CAS-No. : 7727-73-3

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

Identified uses : Laboratory chemicals, Synthesis of substances

Uses advised against : The product is being supplied under the TSCA R&D Exemption

(40 CFR Section 720.36). It is the recipient's responsibility to comply with the requirements of the R&D exemption. The product may not be used for a non-exempt commercial purpose under TSCA unless appropriate consent is granted in writing by

MilliporeSigma.

# 1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.

3050 SPRUCE ST ST. LOUIS MO 63103 UNITED STATES

Telephone : +1 314 771-5765 Fax : +1 800 325-5052

# 1.4 Emergency telephone number

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-

527-3887 CHEMTREC (International) 24

Hours/day; 7 Days/week

## **SECTION 2. HAZARDS IDENTIFICATION**

# GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

# Hazards for the product as supplied

Not a hazardous substance or mixture.

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#### Other hazards

None known.

#### **GHS label elements**

Not a hazardous substance or mixture.

# **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Substance

Components

No hazardous ingredients

#### **SECTION 4. FIRST AID MEASURES**

If inhaled : After inhalation: fresh air.

In case of skin contact : In case of skin contact: Take off immediately all

contaminated clothing. Rinse skin with water/ shower.

: After eye contact: rinse out with plenty of water. In case of eye contact

Remove contact lenses.

If swallowed : After swallowing: make victim drink water (two

glasses at most). Consult doctor if feeling unwell.

Most important symptoms and effects,

both acute and delayed

: The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in

section 11

Protection of first-aiders : For personal protection see section 8.

: No data available Notes to physician

#### **SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing

media

: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing

media

: For this substance/mixture no limitations of

extinguishing agents are given.

Specific hazards during

fire fighting

: Not combustible.

Ambient fire may liberate hazardous vapours.

SIGALD - 403008 Page 2 of 12 Hazardous combustion

products

: Sulphur oxides

Sodium oxides

Specific extinguishing

methods

: No data available

Further information

: Suppress (knock down) gases/vapours/mists with a

water spray jet.

Prevent fire extinguishing water from contaminating

surface water or the ground water system.

Special protective equipment for fire-

fighters

: In the event of fire, wear self-contained breathing

apparatus.

#### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures : Advice for non-emergency personnel:

Avoid inhalation of dusts.

Evacuate the danger area, observe emergency

procedures, consult an expert. Advice for emergency responders: For personal protection see section 8.

Environmental precautions

: Do not let product enter drains.

Methods and materials for containment and

cleaning up

: Cover drains. Collect, bind, and pump off spills.
Observe possible material restrictions (see sections 7

and 10).

Take up dry. Dispose of properly. Clean up affected

area. Avoid generation of dusts.

# **SECTION 7. HANDLING AND STORAGE**

For precautions see section 2.2.

Further information on storage conditions

: Tightly closed.

Dry.

Storage class : 13, Non Combustible Solids

Recommended storage : Recommended storage temperature see product label.

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# **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

# Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

**Engineering measures** : No data available

Personal protective equipment

Respiratory protection : required when dusts are generated.

Our recommendations on filtering respiratory

protection are based on the following standards: DIN

EN 143, DIN 14387 and other accompanying

standards relating to the used respiratory protection

system.

Recommended Filter

type:

: Filter type P1

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Hand protection

Material : Nitrile rubber
Break through time : 480 min
Glove thickness : 0.11 mm
Protective index : Full contact

Manufacturer : KCL 741 Dermatril® L

Material : Nitrile rubber
Break through time : 480 min
Glove thickness : 0.11 mm
Protective index : Splash contact

Manufacturer : KCL 741 Dermatril® L

Remarks : This recommendation applies only to the product

stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-

36124 Eichenzell, Internet: www.kcl.de).

Eye protection : Use equipment for eye protection tested and

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approved under appropriate government standards

such as NIOSH (US) or EN 166(EU).

Safety glasses

Hygiene measures : Change contaminated clothing. Wash hands after

working with substance.

#### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : crystalline

Color : colourless

Odor : odourless

Odor Threshold : Not applicable

pH : 5 - 7.5 (68 °F / 20 °C)

Concentration: 100 g/l (anhydrous substance)

Melting point/ range : 90.3 °F / 32.4 °C

: Not applicable (decomposition)

Flash point : Not applicable

Evaporation rate : No data available

Flammability (solid, gas) : The product is not flammable.

Flammability (liquids) : No data available

Burning rate : No data available

Upper explosion limit / Upper flammability limit

: No data available

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure : No data available

Relative vapour density : No data available

Relative density : No data available

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Density : 1.46 g/mL (77 °F / 25 °C)

Solubility(ies)

Water solubility : 322.2 g/l (68 °F / 20 °C)

Partition coefficient: n-

octanol/water

: No data available

Autoignition temperature : No data available

Decomposition temperature

: > 1634 °F / > 890 °C (anhydrous substance)

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Flow time : No data available

Explosive properties : Not classified as explosive.

Oxidizing properties : none

Molecular weight : 322.20 g/mol

Particle characteristics

Particle size : No data available

## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No data available

Chemical stability The product is chemically stable under standard

ambient conditions (room temperature) .

Possibility of hazardous

reactions

: no information available

: no information available Conditions to avoid

Incompatible materials : No data available

products

Hazardous decomposition : In the event of fire: see section 5

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#### **SECTION 11. TOXICOLOGICAL INFORMATION**

# 11.1 Information on toxicological effects

# **Acute toxicity**

Acute toxicity estimate Oral - 2,500 mg/kg

(Calculation method)

LD50 Oral - Rat - female - > 2,000 mg/kg

(OECD Test Guideline 423) Remarks: (anhydrous substance)

The value is given in analogy to the following substances: sodium sulphate

Symptoms: Possible damages:, Nausea, Vomiting

LC50 Inhalation - Rat - male and female - 4 h - > 2.4 mg/l - dust/mist

(OECD Test Guideline 436)

Remarks: (highest concentration to be prepared)

(anhydrous substance)

The value is given in analogy to the following substances: sodium sulphate

Dermal: No data available

No data available

## Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation (OECD Test Guideline 404)

Remarks: (anhydrous substance)

The value is given in analogy to the following substances: sodium sulphate

# Serious eye damage/eye irritation

Eyes - Rabbit

Result: slight irritation (OECD Test Guideline 405) Remarks: (anhydrous substance)

The value is given in analogy to the following substances: sodium sulphate

## Respiratory or skin sensitization

Maximisation Test - Guinea pig

Result: negative

(OECD Test Guideline 406) Remarks: (anhydrous substance)

The value is given in analogy to the following substances: sodium sulphate

# Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Result: negative Remarks: (ECHA) (anhydrous substance)

The value is given in analogy to the following substances: sodium sulphate Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is

identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is

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identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is

on OSHA's list of regulated carcinogens.

# **Reproductive toxicity**

No data available

# **Specific target organ toxicity - single exposure**

No data available

# Specific target organ toxicity - repeated exposure

No data available

# **Aspiration hazard**

No data available

#### 11.2 Additional Information

Repeated dose toxicity - Rat - male and female - Oral - 4 Weeks - No observed adverse effect level - 1,000 mg/kg
Remarks: Subacute toxicity (anhydrous substance)

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Systemic effects:

After uptake of large quantities:

cardiovascular disorders

Symptoms in:

Gastrointestinal tract

However, when the product is handled appropriately, hazardous effects are unlikely to occur.

Handle in accordance with good industrial hygiene and safety practice.

#### **SECTION 12. ECOLOGICAL INFORMATION**

## **Ecotoxicity**

No data available

## Persistence and degradability

No data available

## **Bioaccumulative potential**

No data available

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# Mobility in soil

No data available

#### Other adverse effects

No data available

#### **SECTION 13. DISPOSAL CONSIDERATIONS**

## **Disposal methods**

Waste from residues : Waste material must be disposed of in accordance

with the national and local regulations. Leave

chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product

itself.

## **SECTION 14. TRANSPORT INFORMATION**

# **International Regulations**

#### IATA-DGR

Not regulated as a dangerous good

### **IMDG-Code**

Not regulated as a dangerous good

# Transport in bulk according to IMO instruments

Not applicable for product as supplied.

# **National Regulations**

#### 49 CFR Road

Not regulated as a dangerous good

Poison Inhalation Hazard : No

# Special precautions for user

Remarks : Not classified as dangerous in the meaning of

transport regulations.

## **SECTION 15. REGULATORY INFORMATION**

# **CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

# SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

# SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312** : No SARA Hazards

Hazards

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**SARA 313** 

: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

# **US State Regulations**

# **Massachusetts Right To Know**

Sodium sulphate decahydrate 7727-73-3

**Massachusetts Right To Know** 

Sodium sulphate decahydrate 7727-73-3

Pennsylvania Right To Know

Sodium sulphate decahydrate 7727-73-3

Pennsylvania Right To Know

Sodium sulphate decahydrate 7727-73-3

**Maine Chemicals of High Concern** 

Product does not contain any listed chemicals

**Vermont Chemicals of High Concern** 

Product does not contain any listed chemicals

**Washington Chemicals of High Concern** 

Product does not contain any listed chemicals

**New Jersey Right To Know** 

Sodium sulphate decahydrate 7727-73-3

The components of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

#### **TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

#### **SECTION 16. OTHER INFORMATION**

## Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response;

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EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonised System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA -International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -International Maritime Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardisation; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA -Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Decomposition Temperature; SARA Superfund Amendments Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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