

1: Identification

Product identifier

Product name: **Sodium hydrosulfite, technical grade**

Stock number: 33381

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

Identified use: SU24 Scientific research and development

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Alfa Aesar, A Johnson Matthey Company

Johnson Matthey Catalog Company, Inc.

30 Bond Street

Ward Hill, MA 01835-8099

Tel: 800-343-0660

Fax: 800-322-4757

Email: tech@alfa.com

www.alfa.com

Information Department: Health, Safety and Environmental Department

Emergency telephone number:

During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789.

2: Hazard(s) identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02 Flame

Self-heat. 1 H251 Self-heating: may catch fire.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

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

Xn; Harmful

R22: Harmful if swallowed.

O; Oxidizing

R7: May cause fire.

R31: Contact with acids liberates toxic gas.

Information concerning particular hazards for human and environment: Not applicable

Hazards not otherwise classified: No information known.

Label elements

Labelling according to Regulation (EC) No 1272/2008 The product is classified and labeled according to the CLP regulation.

Hazard pictograms



GHS02 GHS07

Signal word: Danger

Hazard-determining components of labeling:

Sodium hydrosulfite

Hazard statements

H251 Self-heating: may catch fire.

H302 Harmful if swallowed.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P235+P410 Keep cool. Protect from sunlight.

P330 Rinse mouth.

P420 Store away from other materials.

P407 Maintain air gap between stacks/pallets.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

WHMIS classification

B6 - Reactive flammable material



Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

HEALTH 2 Health (acute effects) = 2

FIRE 3 Flammability = 3

REACTIVITY 2 Physical Hazard = 2

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Product name: **Sodium hydrosulfite, technical grade**

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3: Composition/information on ingredients

Chemical characterization: Mixtures

Dangerous components:

7775-14-6	Sodium hydrosulfite	Xn R22 R7-31 Self-heat. 1, H251; Acute Tox. 4, H302	88.0%
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Additional information None known.

Non-Hazardous Ingredients

7757-82-6	Sodium sulfate		8.0%
144-55-8	Sodium hydrogen carbonate		2.0%
7647-14-5	Sodium chloride		2.0%

4: First-aid measures

Description of first aid measures

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice.

After skin contact

Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice.

After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing Seek medical treatment.

Information for doctor

Most important symptoms and effects, both acute and delayed No further relevant information available.

Indication of any immediate medical attention and special treatment needed No further relevant information available.

5: Fire-fighting measures

Extinguishing media

Suitable extinguishing agents In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.

For safety reasons unsuitable extinguishing agents Water

Special hazards arising from the substance or mixture

If this product is involved in a fire, the following can be released:

Carbon monoxide and carbon dioxide

Sulfur oxides (SOx)

Sodium oxide

Hydrogen chloride (HCl)

Hydrogen sulfide

Advice for firefighters

Protective equipment:
Wear self-contained respirator.
Wear fully protective impervious suit.

6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Environmental precautions:

Do not allow material to be released to the environment without proper governmental permits.

Do not allow product to reach sewage system or any water course.

Do not allow to penetrate the ground/soil.

Methods and material for containment and cleaning up:

Dispose of contaminated material as waste according to section 13.

Do not flush with water or aqueous cleansing agents

Prevention of secondary hazards: No special measures required.

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

Handle under protective gas.

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

Information about protection against explosions and fires: Protect from humidity and water.

Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility:

Do not store with organic materials.

Store away from metal powders.

Do not store together with acids.

Store away from oxidizing agents.

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

Specific end use(s) No further relevant information available.

8: Exposure controls/personal protection

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

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USA

Product name: Sodium hydrosulfite, technical grade

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Control parameters

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: No data

Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Maintain an ergonomically appropriate working environment.

Breathing equipment: Use suitable respirator when high concentrations are present.

Recommended filter device for short term use:

Use a respirator with type P100 (USA) or P3 (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.

Protection of hands:

Impervious gloves

Check protective gloves prior to each use for their proper condition.

The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.

Material of gloves Nitrile rubber, NBR

Penetration time of glove material (in minutes) >480

Glove thickness 0.11 mm

Eye protection: Safety glasses

Body protection: Protective work clothing.

9: Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form: Powder

Color: White

Odor: Pungent

Odor threshold: Not determined.

pH-value: Not applicable.

Change in condition

Melting point/Melting range: 52 °C (126 °F) (dec)

Boiling point/Boiling range: Not determined

Sublimation temperature / start: Not determined

Flammability (solid, gaseous) May cause fire.

Ignition temperature: Not determined

Decomposition temperature: Not determined

Auto igniting: Product is not selfigniting.

Danger of explosion: Not determined.

Explosion limits:

Lower: Not determined

Upper: Not determined

Vapor pressure: Not applicable.

Density: Not determined

Relative density Not determined.

Vapor density Not applicable.

Evaporation rate Not applicable.

Solubility in / Miscibility with

Water: Partly soluble

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

dynamic: Not applicable.

kinematic: Not applicable.

Solvent content:

Organic solvents: 0.0 %

Solids content: 100.0 %

Other information No further relevant information available.

10: Stability and reactivity

Reactivity

May cause fire.

Contact with acids liberates toxic gas.

Chemical stability Stable under recommended storage conditions.

Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications.

Possibility of hazardous reactions

Heating occurs when water is added

Self igniting

Reacts with strong acids and oxidizing agents

Reacts with strong oxidizing agents

Contact with acids liberates toxic gas.

Conditions to avoid No further relevant information available.

Incompatible materials:

Oxidizing agents

Acids

Organic materials

Metal powders

Hazardous decomposition products:

Sulfur oxides (SOx)

Sodium oxide

Hydrogen sulfide

Carbon monoxide and carbon dioxide

Hydrogen chloride (HCl)

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11: Toxicological information

Information on toxicological effects

Acute toxicity:

Harmful if swallowed.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for components in this product.

LD/LC50 values that are relevant for classification: No data

Skin irritation or corrosion: Irritant to skin and mucous membranes.

Eye irritation or corrosion: Irritating effect.

Sensitization: No sensitizing effects known.

Germ cell mutagenicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains mutation data for components in this product.

Carcinogenicity:

The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for components in this product.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

Reproductive toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for components in this product.

Specific target organ system toxicity - repeated exposure: No effects known.

Specific target organ system toxicity - single exposure: No effects known.

Aspiration hazard: No effects known.

Subacute to chronic toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substance.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Carcinogenic categories

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12: Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability: No further relevant information available.

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Additional ecological information:

General notes:

Do not allow material to be released to the environment without proper governmental permits.

Do not allow undiluted product or large quantities to reach ground water, water course or sewage system.

Avoid transfer into the environment.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects: No further relevant information available.

13: Disposal considerations

Waste treatment methods

Recommendation: Consult state, local or national regulations to ensure proper disposal.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

14: Transport information

UN-Number

DOT, IMDG, IATA

UN1384

UN proper shipping name

DOT
IMDG, IATA

Sodium dithionite (Sodium hydrosulfite)
SODIUM DITHIONITE (SODIUM HYDROSULPHITE)

Transport hazard class(es)

DOT



Class

Label

Class

Label

IMDG, IATA

4.2 Substances liable to spontaneous combustion.

4.2

4.2 (S2) Substances liable to spontaneous combustion

4.2



Class

Label

4.2 Substances liable to spontaneous combustion.

4.2

Packing group

DOT, IMDG, IATA

II

Environmental hazards:

Marine pollutant (IMDG):

No

Special precautions for user

Warning: Substances liable to spontaneous combustion

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

Transport/Additional information:

DOT

Marine Pollutant (DOT):

No

UN "Model Regulation":

UN1384, Sodium dithionite (Sodium hydrosulfite), 4.2, II

Product name: Sodium hydrosulfite, technical grade

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15: Regulatory information

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

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.
All components of this product are listed on the Canadian Domestic Substances List (DSL).

SARA Section 313 (specific toxic chemical listings)

None of the ingredients are listed.

California Proposition 65

Prop 65 - Chemicals known to cause cancer

None of the ingredients are listed.

Prop 65 - Developmental toxicity

None of the ingredients are listed.

Prop 65 - Developmental toxicity, female

None of the ingredients are listed.

Prop 65 - Developmental toxicity, male

None of the ingredients are listed.

Information about limitation of use: For use only by technically qualified individuals.

Other regulations, limitations and prohibitive regulations

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.

None of the ingredients are listed.

The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.

None of the ingredients is listed.

Annex XIV of the REACH Regulations (requiring Authorisation for use)

None of the ingredients is listed.

REACH - Pre-registered substances

All ingredients are listed.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16: Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing SDS: Global Marketing Department

Date of preparation / last revision 06/02/2015 / -

Abbreviations and acronyms:

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

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

vPvB: very Persistent and very Bioaccumulative

ACGIH: American Conference of Governmental Industrial Hygienists (USA)

OSHA: Occupational Safety and Health Administration (USA)

NTP: National Toxicology Program (USA)

IARC: International Agency for Research on Cancer

EPA: Environmental Protection Agency (USA)

Self-heat. 1: Self-Heating Substances and Mixtures, Hazard Category 1

Acute Tox. 4: Acute toxicity, Hazard Category 4