

Safety Data Sheet

Sodium Bisulfite Solution 38-40% non food grade

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(30042368/SDS_GEN_US/EN)

1. Identification

Product identifier used on the label

Sodium Bisulfite Solution 38-40% non food grade

Recommended use of the chemical and restriction on use

Recommended use*: Chemical

Recommended use*: inorganic reducing agents; initial product for chemical syntheses; process chemical

Unsuitable for use: Not intended for sale to or use by the general public.

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Chemical family: Aqueous solution based on: sulfites

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Acute Tox.

Aquatic Acute

4 (oral)

3

Acute toxicity

Hazardous to the aquatic environment - acute

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Label elements

Pictogram:



Signal Word:

Warning

Hazard Statement:

H302

Harmful if swallowed.

H402

Harmful to aquatic life.

Precautionary Statements (Prevention):

P273

Avoid release to the environment.

P270

Do not eat, drink or smoke when using this product.

P264

Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P301 + P312

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P301 + P330 + P331

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

Precautionary Statements (Disposal):

P501

Dispose of contents and container to hazardous or special waste collection point.

Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered. If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

Labeling of special preparations (GHS):

Contact with acids liberates toxic gas.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

sodium hydrogen sulphite

CAS Number: 7631-90-5

Content (W/W): ≥ 38.0 - $\leq 42.0\%$

Synonym: Sodium hydrogensulfite (aqueous solution)

4. First-Aid Measures

Description of first aid measures

General advice:

Immediately remove contaminated clothing.

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If inhaled:

Keep patient calm, remove to fresh air, seek medical attention. After inhalation of decomposition products: Immediately administer a corticosteroid from a controlled/metered dose inhaler. Seek medical attention.

If on skin:

Wash thoroughly with soap and water

If in eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Overexposure may cause: vomiting, convulsions, circulatory collapse, CNS stimulation, abdominal cramps, hypotension (low blood pressure), gastric hemorrhage, nausea, diarrhea
Hazards: Risk of sulfur dioxide formation by reaction with gastric acid after swallowing.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, carbon dioxide, foam, dry powder

Unsuitable extinguishing media for safety reasons:
water jet

Additional information:
Product will not burn.

Use extinguishing measures to suit surroundings.

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
Sulphur dioxide,
The substances/groups of substances mentioned can be released if the product is involved in a fire.

Advice for fire-fighters

Protective equipment for fire-fighting:
Wear self-contained breathing apparatus and chemical-protective clothing.

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Further information:

Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered. Contaminated extinguishing water must be disposed of in accordance with official regulations. In case of fire and/or explosion do not breathe fumes.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Breathing protection required.

Avoid contact with the skin, eyes and clothing. Use personal protective clothing. Ensure adequate ventilation.

Environmental precautions

Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Retain and dispose of contaminated wash water.

Methods and material for containment and cleaning up

For small amounts: Pick up with suitable absorbent material.

For large amounts: Pump off product.

Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling

Use only in well-ventilated areas. Do not inhale vapours / aerosols. Avoid contact with skin and eyes. Breathing must be protected when large quantities are decanted without local exhaust ventilation.

Protection against fire and explosion:

The substance/product is non-combustible. No special precautions necessary.

Conditions for safe storage, including any incompatibilities

Segregate from acids and acid forming substances. Segregate from oxidants.

Suitable materials for containers: Polyester resin, glass reinforced (Palatal A410), rubberized, Stainless steel 1.4462, Stainless steel 1.4402 (V4A), Stainless steel 1.4404

Further information on storage conditions: Keep away from heat. Keep container tightly closed in a cool, well-ventilated place. Keep container dry. The product consumes oxygen. Danger of lack of oxygen in containers and tanks.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits The substance mentioned develops if the regulation/notes for storage and handling are not observed.

Sulphur dioxide

ACGIH, US: STEL value 0.25 ppm ;

OSHA Z1: PEL 5 ppm 13 mg/m3 ;

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sodium hydrogen sulphite ACGIH, US: TWA value 5 mg/m³ ;

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) respirator as necessary.

Observe OSHA regulations for respirator use (29 CFR 1910.134).

Hand protection:

Chemical resistant protective gloves should be worn to prevent all skin contact., Suitable materials may include, nitrile rubber (Buna N), chloroprene rubber (Neoprene), polyvinylchloride (Pylox), Consult with glove manufacturer for testing data., Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Do not breathe vapour/spray. Hands and/or face should be washed before breaks and at the end of the shift.

9. Physical and Chemical Properties

Form:	aqueous solution
Odour:	pungent
Odour threshold:	Not determined due to potential health hazard by inhalation.
Colour:	colourless to yellow
pH value:	3.5 - 5.0 (DIN 19268)
crystallization temperature:	< 5 °C
Melting point:	5 °C
Freezing point:	No data available.
Boiling point:	100 °C (1,013 mbar) Information applies to the solvent.
Boiling range:	No data available.
Flash point:	not applicable
Flammability:	not flammable
Lower explosion limit:	For liquids not relevant for classification and labelling.
Upper explosion limit:	For liquids not relevant for classification and labelling.
Autoignition:	not applicable
Vapour pressure:	approx. 155 mbar (55 °C)

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	approx. 124 mbar (50 °C)	
	approx. 24 mbar (20 °C)	
	The vapour pressure of the aqueous solution consists of the partial pressure for water and the partial pressure for sulphur dioxide.	
	27 hPa (20 °C)	
	103 hPa (50 °C)	
Density:	1.325 g/cm ³ (20 °C)	(DIN 51757)
<i>Information on: sodium hydrogen sulphite</i>		
Partitioning coefficient n-octanol/water (log Pow):	not applicable	

Self-ignition temperature:	not self-igniting	
	not self-igniting	
Thermal decomposition:	It is not a self-decompositionable substance.	
Viscosity, dynamic:	3.64 mPa.s (20 °C)	(DIN 51562)
Viscosity, kinematic:	not determined	
Particle size:	The substance / product is marketed or used in a non solid or granular form.	
Solubility in water:	approx. 515 g/l (20 °C)	
Solubility (quantitative):	approx. 515 g/l (20 °C)	
Evaporation rate:	The values mentioned are those of the solved solid. Value can be approximated from Henry's Law Constant or vapor pressure.	

10. Stability and Reactivity

Reactivity

Oxidizing properties:
not fire-propagating

Chemical stability

Possibility of hazardous reactions

Reacts with nitrites. Reacts with nitrates. Reacts with oxidizing agents. Generation of sulphur dioxide upon exposure to acids. (or conditions.) The product consumes oxygen.

Conditions to avoid

avoid atmospheric oxygen

Incompatible materials

nitrites, nitrates, oxidizing agents, acids

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Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: Sulphur dioxide

Thermal decomposition:

It is not a self-decomposable substance.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Information on: sodium hydrogen sulphite

Assessment of acute toxicity: Of moderate toxicity after single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

Oral

Information on: sodium hydrogen sulphite

Type of value: LD50

Species: rat

Value: approx. 2,610 mg/kg (similar to OECD guideline 401)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Inhalation

Type of value: LC50

Species: rat (male/female)

Value: > 5.5 mg/l (OECD Guideline 403)

Exposure time: 4 h

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Dermal

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg (OECD Guideline 402)

No mortality was observed. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

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Skin

Species: rabbit

Result: non-irritant

Method: OECD Guideline 404

Literature data.

Eye

Species: rabbit

Result: non-irritant

Method: OECD Guideline 405

Literature data.

Sensitization

Assessment of sensitization: A sensitizing effect on particularly sensitive individuals cannot be excluded.

Mouse Local Lymph Node Assay (LLNA)

Species: mouse

Result: Non-sensitizing.

Method: OECD Guideline 429

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: No substance-specific organotoxicity was observed after repeated administration to animals. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Genetic toxicity

Assessment of mutagenicity: The substance was not mutagenic in a test with mammals.

Carcinogenicity

Assessment of carcinogenicity: No reliable data was available concerning carcinogenic activity. The chemical structure does not suggest a specific alert for such an effect.

Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect.

Teratogenicity

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Experiences in humans

With sensitive persons it can lead to an over sensitive reaction.

12. Ecological Information

Toxicity

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Aquatic toxicity

Assessment of aquatic toxicity:

Acutely harmful for aquatic organisms.

Chronic toxicity to fish

No observed effect concentration (34 d) \geq 50 mg/l, Brachydanio rerio (OECD Guideline 210, Flow through.)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. Nominal concentration.

Chronic toxicity to aquatic invertebrates

No observed effect concentration (21 d) $>$ 10 mg/l, Daphnia magna (OECD Guideline 211, semistatic)

Nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Toxicity to fish

Information on: sodium hydrogen sulphite

LC50 (96 h) 316 mg/l, Leuciscus idus (DIN 38412 Part 15, static)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. Nominal concentration.

Aquatic invertebrates

Information on: sodium hydrogen sulphite

(48 h) 89 mg/l, Daphnia magna (Directive 79/831/EEC, static)

Nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aquatic plants

Information on: sodium hydrogen sulphite

EC50 (72 h) 43.8 mg/l (growth rate), Scenedesmus subspicatus (OECD Guideline 201, static)

Nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Assessment of terrestrial toxicity

Study scientifically not justified.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

Information on: sodium hydrogen sulphite

OECD Guideline 209 static

activated sludge of a predominantly domestic sewage/EC10 (3 h): 634.4 mg/l

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. Nominal concentration.

Persistence and degradability

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Assessment biodegradation and elimination (H2O)

Inorganic product which cannot be eliminated from water by biological purification processes.

Decomposition products formed by microbiotic degradation may affect the activity in biological waste water treatment plants.

Assessment of stability in water

According to structural properties, hydrolysis is not expected/probable.

Study scientifically not justified.

Bioaccumulative potential

Assessment bioaccumulation potential

Accumulation in organisms is not to be expected.

Bioaccumulation potential

Study scientifically not justified.

Assessment bioaccumulation potential

Information on: sodium hydrogen sulphite

Accumulation in organisms is not to be expected.

Mobility in soil

Assessment transport between environmental compartments

Adsorption to solid soil phase is not expected.

Additional information

Other ecotoxicological advice:

Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations. At the present state of knowledge, no negative ecological effects are expected.

13. Disposal considerations

Waste disposal of substance:

Must be disposed of or incinerated in accordance with local regulations. Observe national and local legal requirements.

Container disposal:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

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Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

CERCLA RQ

5000 LBS

CAS Number

7631-90-5

Chemical name

sodium hydrogen sulphite

State regulations

State RTK

NJ

PA

CAS Number

7631-90-5

7631-90-5

7757-82-6

Chemical name

sodium hydrogen sulphite

sodium hydrogen sulphite

Sodium sulfate

NFPA Hazard codes:

Health: 1

Fire: 0

Reactivity: 0

Special:

Assessment of the hazard classes according to UN GHS criteria (most recent version):

Acute Tox.

4 (oral)

Acute toxicity

Aquatic Acute

3

Hazardous to the aquatic environment - acute

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2024/10/23

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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