

Safety Data Sheet

Sodium Bisulfite Solution 38-40% non food grade

Revision date : 2022/10/20

Version: 2.0

Page: 1/11

(30042368/SDS_GEN_CA/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 Canada Inc.
5025 Creekbank Road
Building A, Floor 2
Mississauga, ON, L4W 0B6, CANADA

Telephone: +1 289 360-1300

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: (800) 454-COPE (2673)

Other means of identification

Chemical family: Aqueous solution based on: sulfites

2. Hazards Identification

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

Classification of the product

Acute Tox.

4 (oral)

Acute toxicity

Safety Data Sheet

Sodium Bisulfite Solution 38-40% non food grade

Revision date: 2022/10/20
Version: 2.0

Page: 2/11
(30042368/SDS_GEN_CA/EN)

Aquatic Acute

3

Hazardous to the aquatic environment - acute

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

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. No specific dangers known, if the regulations/notes for storage and handling are considered.

Labeling of special preparations (GHS):

Contact with acids liberates toxic gas.

3. Composition / Information on Ingredients

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

sodium hydrogen sulphite

CAS Number: 7631-90-5

Content (W/W): >= 38.0 - <= 42.0%

Synonym: Sodium hydrogensulfite (aqueous solution)

4. First-Aid Measures

Description of first aid measures

Safety Data Sheet

Sodium Bisulfite Solution 38-40% non food grade

Revision date: 2022/10/20
Version: 2.0

Page: 3/11
(30042368/SDS_GEN_CA/EN)

General advice:

Remove contaminated clothing.

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.

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:

Rinse mouth and then drink 200-300 ml of water.

Most important symptoms and effects, both acute and delayed

Symptoms: Overexposure may cause: vomiting, convulsions, circulatory collapse, CNS stimulation, abdominal cramps, hypotony, 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

Suitable extinguishing media:

water spray, alcohol-resistant foam, dry powder, carbon dioxide

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 a self-contained breathing apparatus.

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.

Safety Data Sheet

Sodium Bisulfite Solution 38-40% non food grade

Revision date: 2022/10/20

Version: 2.0

Page: 4/11

(30042368/SDS_GEN_CA/EN)

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Breathing protection required.

Environmental precautions

Do not empty into drains.

Methods and material for containment and cleaning up

For small amounts: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.

For large amounts: Pump off product. Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling

Protection against fire and explosion:

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

Conditions for safe storage, including any incompatibilities

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 at temperature not exceeding 40 °C. The product consumes oxygen. Danger of lack of oxygen in containers and tanks.

Protect from temperatures below: 10 °C

The packed product must be protected from temperatures below the indicated one.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits The release and quantity of the stated substance is dependent on the processing conditions. 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 ;

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

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified acid gas/particulate respirator as needed.

Safety Data Sheet

Sodium Bisulfite Solution 38-40% non food grade

Revision date: 2022/10/20

Version: 2.0

Page: 5/11

(30042368/SDS_GEN_CA/EN)

Hand protection:

Chemical resistant protective gloves (EN ISO 374-1), Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1);, chloroprene rubber (CR) - 0.5 mm coating thickness, butyl rubber (butyl) - 0.7 mm coating thickness, nitrile rubber (NBR) - 0.4 mm coating thickness, fluoroelastomer (FKM) - 0.7 mm coating thickness, polyvinylchloride (PVC) - 0.7 mm coating thickness, Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing., Manufacturer's directions for use should be observed because of great diversity of types.

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.

9. Physical and Chemical Properties

Form:	aqueous solution
Odour:	pungent odour
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) 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.

Safety Data Sheet

Sodium Bisulfite Solution 38-40% non food grade

Revision date: 2022/10/20

Version: 2.0

Page: 6/11

(30042368/SDS_GEN_CA/EN)

	27 hPa (20 °C)	
	103 hPa (50 °C)	
Density:	1.31 - 1.35 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	
Thermal decomposition:	not self-igniting It is not a self-decomposable substance.	
Viscosity, dynamic:	3.64 mPa.s (20 °C)	
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

Exothermic reaction. Reacts with peroxides. Reacts with nitrites. The product consumes oxygen.

Conditions to avoid

avoid atmospheric oxygen See SDS section 7 - Handling and storage.

Incompatible materials

acids, oxidizing agents

Hazardous decomposition products

Decomposition products:

Possible thermal decomposition products: Sulphur dioxide, sulfur oxides, metallic oxides

Thermal decomposition:

It is not a self-decomposable substance.

Safety Data Sheet

Sodium Bisulfite Solution 38-40% non food grade

Revision date: 2022/10/20

Version: 2.0

Page: 7/11

(30042368/SDS_GEN_CA/EN)

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.

Skin

Species: rabbit

Result: non-irritant

Method: OECD Guideline 404

Literature data.

Eye

Species: rabbit

Safety Data Sheet

Sodium Bisulfite Solution 38-40% non food grade

Revision date: 2022/10/20

Version: 2.0

Page: 8/11

(30042368/SDS_GEN_CA/EN)

Result: non-irritant
Method: OECD Guideline 405
Literature data.

Sensitization

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

If this substance comes into close contact with the skin of hypersensitive persons, sensitization might occur.

Other Information

after oral administration after inhalation Can cause allergies

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Acutely harmful for aquatic organisms.

Chronic toxicity to fish

Safety Data Sheet

Sodium Bisulfite Solution 38-40% non food grade

Revision date: 2022/10/20

Version: 2.0

Page: 9/11

(30042368/SDS_GEN_CA/EN)

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

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.

Safety Data Sheet

Sodium Bisulfite Solution 38-40% non food grade

Revision date: 2022/10/20

Version: 2.0

Page: 10/11

(30042368/SDS_GEN_CA/EN)

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:

Contact manufacturer regarding recycling. Contact waste centre regarding recycling. Must be disposed of or incinerated in accordance with local regulations. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

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

TDG

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Safety Data Sheet

Sodium Bisulfite Solution 38-40% non food grade

Revision date: 2022/10/20

Version: 2.0

Page: 11/11

(30042368/SDS_GEN_CA/EN)

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:

Chemical DSL, CA released / listed

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: 2022/10/20

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.

END OF DATA SHEET