

Safety Data Sheet

Potassium Sulfite Solution 45%

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Version: 1.0

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(30042357/SDS_GEN_CA/EN)

1. Identification

Product identifier used on the label

Potassium Sulfite Solution 45%

Recommended use of the chemical and restriction on use

Recommended use*: Chemical

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

* 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: inorganic reducing agents

2. Hazards Identification

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

Classification of the product

Aquatic Acute

3

Hazardous to the aquatic environment - acute

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Label elements

Hazard Statement:
H402 Harmful to aquatic life.

Precautionary Statements (Prevention):
P273 Avoid release to the environment.

Precautionary Statements (Disposal):
P501 Dispose of contents/container in accordance with local regulations.

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)

Sulfurous acid, dipotassium salt
CAS Number: 10117-38-1
Content (W/W): ≥ 25.0 - $< 50.0\%$
Synonym: Potassium sulfite

4. First-Aid Measures

Description of first aid measures

General advice:
Immediately remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention.

If on skin:
Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.

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: allergic symptoms

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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

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

Sulphur dioxide,

The substances/groups of substances mentioned can be released in case of 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.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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

Environmental precautions

Do not empty into drains.

Methods and material for containment and cleaning up

For large amounts: Pump off product.

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

7. Handling and Storage

Precautions for safe handling

Use only in well-ventilated areas. Avoid inhalation of dusts/mists/vapours.

Protection against fire and explosion:

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

Conditions for safe storage, including any incompatibilities

Suitable materials for containers: Stainless steel 1.4541, Stainless steel 1.4571, Stainless steel 1.4401, Stainless steel 1.4436, High density polyethylene (HDPE), rubberized

8. Exposure Controls/Personal Protection

No occupational exposure limits known.

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 ;

Personal protective equipment

Respiratory protection:

Respiratory protection in case of release of decomposition products.

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, fluoropolymer (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:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form:	aqueous solution
Odour:	odourless
Odour threshold:	not applicable, odour not perceivable
Colour:	colourless
pH value:	9 - 10.5
crystallization temperature:	approx. -30 °C
Freezing point:	No data available.
Melting point:	No data available.

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Boiling point:	135 °C (1,013 hPa)	
Flash point:	not applicable	
Lower explosion limit:	For liquids not relevant for classification and labelling.	
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Autoignition:	No data available.	
Vapour pressure:	approx. 14 mbar (20 °C) approx. 81 mbar (50 °C) approx. 100 mbar (55 °C)	
Density:	1.445 - 1.460 g/cm ³ (20 °C)	(DIN 51757)
Relative density:	No data available.	
<i>Information on: Sulfurous acid, dipotassium salt</i>		
Partitioning coefficient n-octanol/water (log Pow):	Study scientifically not justified.	

Self-ignition temperature:	not self-igniting	
Thermal decomposition:	It is not a self-decompositionable substance.	
Viscosity, dynamic:	4.15 mPa.s (20 °C)	
Viscosity, kinematic:	not determined	
Solubility in water:	505 g/l (20 °C)	
Miscibility with water:	completely (e.g. >=90%)	
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	

10. Stability and Reactivity

Reactivity

Oxidizing properties:
not fire-propagating

Chemical stability

Peroxides: The product does not contain peroxides. The product/the substance has not a tendency towards the formation of peroxide.

Possibility of hazardous reactions

Evolution of sulphur dioxide under influence of acids. The product consumes oxygen.

Conditions to avoid

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

Incompatible materials

acids, nitrites, nitrates, oxidizing agents

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Hazardous decomposition products

Decomposition products:

Sulphur dioxide, The substances/groups of substances mentioned may be released upon the reaction with acids.

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

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

Information on: Sulfurous acid, dipotassium salt

Assessment of acute toxicity: Of low toxicity after single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Oral

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg

The data on toxicology refer to the active ingredient.

Information on: Sulfurous acid, dipotassium salt

Type of value: LD50

Species: rat (male/female)

Value: approx. 2,610 mg/kg (BASF-Test)

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

Inhalation

Information on: Sulfurous acid, dipotassium salt

Type of value: LC50

Species: rat (male/female)

Value: > 5.5 mg/l

Exposure time: 4 h

Tested as dust aerosol.

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

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Dermal

Information on: Sulfurous acid, dipotassium salt

Type of value: LD50

Species: rat (male/female)

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

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

Irritation / corrosion

Assessment of irritating effects: Based on available data, the classification criteria are not met.

Skin

Species: rabbit

Result: non-irritant

Method: OECD Guideline 404

The product has not been tested. The statement has been derived from the properties of the individual components.

Eye

Species: rabbit

Result: non-irritant

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

Sensitization

Assessment of sensitization: Based on available data, the classification criteria are not met.

Information on: Sulfurous acid, dipotassium salt

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies. A sensitizing effect on particularly sensitive individuals cannot be excluded. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aspiration Hazard

not applicable

Chronic Toxicity/Effects

Genetic toxicity

Assessment of mutagenicity: The substance was not mutagenic in bacteria.

Carcinogenicity

Assessment of carcinogenicity: Based on available data, the classification criteria are not met.

Information on: Sulfurous acid, dipotassium salt

Assessment of carcinogenicity: In long-term studies in rats in which the substance was given by feed, a carcinogenic effect was not observed. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Reproductive toxicity

Assessment of reproduction toxicity: Based on available data, the classification criteria are not met.

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Information on: Sulfurous acid, dipotassium salt

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Teratogenicity

Assessment of teratogenicity: Based on available data, the classification criteria are not met.

Information on: Sulfurous acid, dipotassium salt

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

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. The product has not been tested. The statement has been derived from the properties of the individual components.

Aquatic toxicity

Information on: Sulfurous acid, dipotassium salt

Assessment of aquatic toxicity:

Acutely harmful for aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish

Information on: Sulfurous acid, dipotassium salt

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

The details of the toxic effect relate to the nominal concentration.

Aquatic invertebrates

Information on: Sulfurous acid, dipotassium salt

EC50 (48 h) 74 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

The details of the toxic effect relate to the nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

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Aquatic plants

Information on: Sulfurous acid, dipotassium salt
EC50 (72 h) 40 mg/l (growth rate), Scenedesmus subspicatus (ISO 8692, static)
Nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

Information on: Sulfurous acid, dipotassium salt
OECD Guideline 209 static
activated sludge of a predominantly domestic sewage/EC50 (3 h): > 1,000 mg/l
The details of the toxic effect relate to the nominal concentration. The product has not been tested.
The statement has been derived from substances/products of a similar structure or composition.

Persistence and degradability

Assessment biodegradation and elimination (H₂O)
Inorganic product which cannot be eliminated from water by biological purification processes.

Bioaccumulative potential

Bioaccumulation potential

No significant accumulation in organisms is expected as a result of the distribution coefficient of n-octanol/water (log Pow).

Mobility in soil

Assessment transport between environmental compartments
Adsorption to solid soil phase is not expected.

Additional information

Other ecotoxicological advice:
Do not release untreated into natural waters.

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.

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

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Not classified as a dangerous good under transport regulations

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 DSL, CA released / listed

NFPA Hazard codes:

Health: 0 Fire: 1 Reactivity: 0 Special:

16. Other Information

SDS Prepared by:

BASF NA Product Regulations
SDS Prepared on: 2022/10/19

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