We create chemistry

Safety Data Sheet
Potassium Sulfite Solution 45%

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

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

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 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. 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: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., Many individuals are sensitive to sulphite additives and may experience a range of symptoms, including dermatitis, urticaria, angio-oedema, abdominal pain, diarrhoea, bronchoconstriction and anaphylaxis.
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, carbon dioxide, foam, dry powder

water spray

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.

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

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.

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: Stainless steel 1.4401, Stainless steel 1.4404, Stainless steel 1.4301 (V2), Stainless steel 1.4541, Stainless steel 1.4571, High density polyethylene (HDPE), rubberized

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

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. Suitable respiratory protection for lower concentrations or short-term effect: Wear a NIOSH-certified (or equivalent) respirator as necessary. Suitable respiratory protection for higher concentrations or long-term effect: Self-contained breathing apparatus.

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).

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:	odourless	
Odour threshold:	not applicable, odour not perceivable	
Colour:	colourless	
pH value:	9 - 10.5	(other)
crystallization temperature:	approx. -30 °C	
Freezing point:	No data available.	
Melting point:	No data available.	
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)	(measured)
	approx. 81 mbar (50 °C)	(measured)
	approx. 100 mbar (55 °C)	(measured)
Density:	1.445 - 1.460 g/cm3 (20 °C)	(DIN 51757)
Relative density:	No data available.	
Information on: Sulfurous acid, dipotassium salt		
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)	(internal method)
Viscosity, kinematic:	not determined	
Particle size:	The substance / product is marketed or used in a non solid or granular form.	
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

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

Hazardous decomposition products

Decomposition products:
Hazardous decomposition products: Sulphur dioxide

Thermal decomposition:
It is not a self-decompositionable 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 (similar to OECD guideline 403)
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.

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.

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
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.

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

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:
There is a high probability that the product is not acutely harmful to 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.
EC50 (48 h) 230 mg/l, Daphnia magna (other, 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.

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.
EC50 (72 h) > 100 mg/l (growth rate), Pseudokirchneriella subcapitata (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.

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:
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
TDG

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

DSL listed and/or otherwise compliant.

NFPA Hazard codes:
Health: 0 Fire: 1 Reactivity: 0 Special:

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.

END OF DATA SHEET