



1 Identification

GHS Product Identifier

25% SODIUM METABISULPHITE SOLUTION

Other means of identification

CAS:	Mixture not listed in registry
EC:	Mixture not listed in registry
RTECS:	Mixture not listed in registry
ICSC:	Mixture not listed in registry
Chemical Family:	Sulphites
Synonyms:	SMBS 25%(Active)
Proper Shipping Name:	BISULFITES, AQUEOUS SOLUTION, N.O.S.
Chemical Formula:	Mixture

Recommended use of the chemical and restriction on use

Industrial Water Treatment. Not for food, drug or household use.

Supplier's details

AQUATRADE WATER TREATMENT CHEMICALS (PTY) LTD

4A Spanner Road
Spartan, Kempton Park
Gauteng, South Africa
1619
www.aquatradesa.co.za
sheq@aquatradesa.co.za

PO Box 357
Isando
Gauteng, South Africa
1600
Tel: +27 11 394 0752
Tel: +27 87 654 3326 (SDS Enquiries)

Emergency phone number

+27 82 921 0643 (Available Mon - Fri, GMT 5:00 to 20:00)

2 Hazard(s) identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute Toxicity, Oral (Category 5), H303

Serious Eye Damage/Eye Irritation, (Category 1), H318

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS label elements

Warning



May be harmful if swallowed

Causes serious eye damage

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

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/physician.

Other hazards which do not result in classification

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3 Composition/information on ingredients

Description	CAS Number	EINECS Number	%	Note
Sodium Metabisulfite	7681-57-4		0 - 25	Eye Dam. 1 H318 Acute Tox. 4 H302 Aquatic Acute (Cat. 3) H402

4 First-aid measures

Description of necessary first-aid measures

Eyes:

Immediately flush with cold water for at least 15 minutes. Seek medical attention.

Skin:

Wash skin with plenty of water. If irritation/rash occurs, get medical attention.

Ingestion:

Get medical attention. Treat symptomatically. If vomiting occurs, keep head lower than hips.

Inhalation:

Remove patient to fresh air and seek medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Inhalation:

Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath. May cause allergic reaction in sensitive individuals.

Ingestion:

May cause gastric irritation by the liberation of sulfurous acid. An asthmatic reaction may occur after ingestion. Large doses may result in nausea, vomiting, diarrhea, abdominal pains, circulatory disturbance, and central nervous system depression. Estimated fatal dose is 10 gm.

Skin Contact:

Causes irritation to skin. Symptoms include redness, itching, and pain.

Eye Contact:

Causes irritation, redness, and pain. Contact may cause irreversible eye damage. Symptoms may include stinging, tearing, redness, swelling, corneal damage and blindness.

Chronic Exposure:

No information found.

Aggravation of Pre-existing Conditions:

Some individuals are said to be dangerously sensitive to minute amounts of sulfites in foods. Symptoms may include broncho constriction, shock, gastrointestinal disturbances, angio edema, flushing, and tingling sensations. Once allergy develops, future exposures can cause asthma attacks with shortness of breath, wheezing, and cough.

Indication of immediate medical attention and special treatment needed, if necessary

None known.

5 Fire-fighting measures

Suitable extinguishing media

Dry chemical, CO₂, alcohol-resistant foam or water spray.

Specific hazards arising from the chemical

May release hazardous gas with fire or water. **DO NOT** release runoff from fire control methods to sewers or waterways.

Special protective actions for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

All personnel involved in spill cleanup should follow good industrial hygiene practices and avoid skin and eye contact by wearing appropriate personal protective equipment. Wear appropriate PPE - See Section 8.

Environmental precautions

The Predicted No-Effect Concentration (PNEC) value is the concentration of a substance below which adverse effects in the environment are not expected to occur.

Hazard for Aquatic Organisms	
Freshwater	1 mg/L
Intermittent releases (freshwater)	-
Marine water	100 µg/L
Intermittent releases (marine water)	-
Sewage treatment plant (STP)	75.4 mg/L
Sediment (freshwater)	-
Sediment (marine water)	-
Hazard for Air	
Air	-
Hazard for Terrestrial Organism	
Soil	-
Hazard for Predators	
Secondary poisoning	-

Avoid discharge into open water sources or municipal sewer systems.

Methods and materials for containment and cleaning up

Safely stop source of spill. Restrict non-essential personnel from area.

Small Spills / Leaks:

Spills can be neutralized with an alkaline material such as caustic soda. Leaks may be located by spraying the area with ammonium hydroxide solution which forms a white fume in the presence of sulfur dioxide.

Large Spills / Leaks:

Large spills should be handled according to a predetermined plan.

7 Handling and storage

Precautions for safe handling

Avoid contact with product. Do not breathe dust or vapor.

Conditions for safe storage, including any incompatibilities

Store in areas away from heat and direct sunlight. Segregate from bases, strong acids and oxidizers.

8 Exposure controls/personal protection

Control parameters

Product

Occupational exposure limits:

Not listed

Additional exposure limits under the conditions of use:

Not available.

DNEL/DMEL and PNEC-Values:

Not available.

Active Ingredient

The derived no- or minimum effect level (DN(M)EL) is the level of exposure above which a human should not be exposed to a substance. Please note that when more than one summary is provided, DN(M)EL values may refer to constituents of the substance and not to the substance as a whole.

Data for WORKERS

INHALATION Exposure	Threshold	Most sensitive study
Systemic Effects		
Long-term:	(DNEL) 225 mg/m ³	repeated dose toxicity
Acute /short term:	-	-
Local Effects		
Long-term:	-	-
Acute /short term:	-	-
DERMAL Exposure	Threshold	Most sensitive study
Systemic Effects		
Long-term:	-	-
Acute /short term:	-	-
Local Effects		
Long-term:	-	-
Acute /short term:	-	-
EYE Exposure		
-		

Data for the GENERAL POPULATION

INHALATION Exposure	Threshold	Most sensitive study
Systemic Effects		
Long-term:	(DNEL) 66 mg/m ³	repeated dose toxicity

Acute /short term:	-	-
Local Effects		
Long-term:	-	-
Acute /short term:	-	-
DERMAL Exposure	Threshold	Most sensitive study
Systemic Effects		
Long-term:	-	-
Acute /short term:	-	-
Local Effects		
Long-term:	-	-
Acute /short term:	-	-
ORAL Exposure	Threshold	Most sensitive study
Systemic Effects		
Long-term:	(DNEL) 8.6 mg/kg bw/day	repeated dose toxicity
Acute /short term:	-	-
EYE Exposure		
-		

Components	CAS Number	TWA
Sodium Metabisulfite	007681-57-4	5 mg/m3

TWA – Time Weighted Average based on 8 hour exposure days and a 40 hour week.

Appropriate engineering controls

Avoid spraying the material. Supply safety shower and eyewash in immediate vicinity of exposure area. **Avoid** contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Individual protection measures

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors. Recommendations below is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.



Eye/face protection:

Face shield and safety glasses or safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU). Contact lenses should not be worn; they may contribute to severe eye injury.

Skin protection:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with

applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves.

Body Protection:

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection:

No respiratory protection required.

9 Physical and chemical properties

Physical and chemical properties

Appearance (physical state, colour etc):	Clear colourless liquid
Odour:	No test data available
Odour threshold:	No test data available
pH:	4.0 - 6.5
Melting/Freezing Point:	No test data available
Initial boiling point and boiling range:	No test data available
Flash point:	Do not flash
Evaporation rate:	No test data available
Flammability (solid, gas):	Not flammable
Upper/lower flammability or explosive limits:	Not flammable or explosive
Vapour pressure:	No test data available
Vapour density:	No test data available
Relative density:	1.22 - 1.24
Solubility(ies):	Miscible in water
Partition coefficient: n-octanol/water:	No test data available
Auto-ignition temperature:	No test data available
Decomposition temperature:	No test data available
Viscosity:	No test data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10 Stability and reactivity

Reactivity

In the presence of acid, Sodium Metabisulfite (and solutions) may release toxic and hazardous fumes of sulfur oxides, including sulfur dioxide. Acute poisoning from sulfur dioxide is rare because the gas is easily detected. It is so irritating that contact cannot be tolerated. Symptoms include coughing, hoarseness, sneezing, tearing, and breathing difficulty. However,

workers who cannot escape high accidental exposure may suffer severe pulmonary damage which can be fatal. Contact with powdered potassium, sodium metals, alkali, and oxidizing agents produce violent reactions. Reacts with water and steam to form corrosive sulfurous acid. Reacts with chlorates to form unstable chlorine dioxide.

Hazardous polymerization will not occur.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

No hazardous reactions known.

Conditions to avoid

Avoid excessive heat, open flame, and direct sunlight.

Incompatible materials

Acids, potassium, sodium metals, alkali, and oxidizing agents and chlorates.

Hazardous decomposition products

May release hazardous sulfur dioxide gas.

11 Toxicological information

Toxicological (health) effects

Acute Inhalation Effects (rat):

Not available.

Acute Oral Effects (rat):

LD₅₀ = 1 131 mg/kg.

Acute Dermal Effects (rat):

LD₅₀ = >2 0000 mg/kg.

Skin corrosion/irritation:

Non-corrosive.

Serious eye damage/irritation:

Not available.

Respiratory or skin sensitization:

Not classified. Based on available data, the classification criteria are not met

Germ cell mutagenicity:

Not classified. Based on available data, the classification criteria are not met

Carcinogenicity:

IARC, NTP and OSHA do not list Sodium Metabisulphite as a carcinogen.

Reproductive toxicity:

Not classified. Based on available data, the classification criteria are not met

Specific target organ toxicity – single exposure:

Not classified.

Specific target organ toxicity – repeated exposure:

Not classified.

Aspiration hazard:

Not classified.

Information on the likely routes of exposure

Skin and eye contact - YES (Vapours/Mist)

Inhalation - YES (Vapours/Mist)

Ingestion - YES (Unhygienic practices)

Symptoms related to the physical, chemical and toxicological characteristics

Skin:

Contact with skin may result in irritation. Sulfite sensitive individuals may show signs of allergic contact dermatitis from repeated or prolonged skin exposure.

Eyes:

Exposure to dust may cause severe eye irritation with possible permanent damage.

Inhalation:

Inhalation of dust may result in respiratory tract irritation. May cause asthma-like symptoms in sensitive individuals.

Ingestion:

Swallowing can result in nausea, vomiting, diarrhea and abdominal pain. May also cause allergic reactions in sulfite sensitive individuals

Delayed and immediate effects and also chronic effects from short and long term exposure

Prolonged or repeated exposure may cause dermatitis, and sensitization reactions. Exposure to asthmatic, atopic and sulfite sensitive individuals can result in expiratory volume. Decomposition of sodium metabisulfite and solutions may release toxic and hazardous fumes of sulfur oxides, including sulfur dioxide, which may cause permanent pulmonary impairments from acute and chronic exposure. The Immediately Dangerous to Life or Health (IDLH) level for SO₂ is 100 ppm.

Numerical measures of toxicity (such as acute toxicity estimates)

<i>Acute toxicity:</i>		<i>Category:</i>
LD ₅₀ Oral Rat	3736.84 mg/kg	5
LD ₅₀ Dermal	>5 000 mg/kg	Not classifiable
LC ₅₀ Inhalation	>5 000 mg/kg	Not classifiable

Interactive effects

None known.

Where specific chemical data are not available

No data available.

Mixtures

Not applicable.

Mixture versus ingredient information

Not applicable.

Other information

None known.

12 Ecological information

Toxicity

Sodium Metabisulfite is a non hazardous solid commonly used as a waste water dechlorination agent. High concentrations will contribute to elevated chemical oxygen demand in aquatic environments.

Persistence and degradability

Rapid biological decomposition.

Bioaccumulative potential

No test data available.

Mobility in soil

No test data available.

Other adverse effects

None known.

13 Disposal considerations

Disposal methods

Waste disposal recommendations:

Dispose of waste and container in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle/reuse. Remove for physico-chemical/biological treatment. **DO NOT** discharge into drains or the environment.

Ecology - waste materials:

Avoid release to the environment.

Empty Container:

DO NOT reuse container. Rinse thoroughly before discarding in chemical waste or return to supplier.

14 Transport information

UN Number

UN2693 Class 8 PG III Exempt 200 F: 5

UN Proper Shipping Name

BISULFITES, AQUEOUS SOLUTION, N.O.S.

Transport hazard class(es)

8



Packing group, if applicable

III

Exempt quantity:

200

Factor:

5

Environmental hazards

None known.

Special precautions for user

None except those in sections 4 to 8.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

15 Regulatory information

Safety, health and environmental regulations specific for the product in question

SA NATIONAL LEGISLATION

Hazardous Substances Act 15 of 1973 and Regulations.

Occupational Health and Safety Act 85 of 1993 and Regulations.

SA NATIONAL STANDARDS

SANS 10228 : 2006 : Identification and Classification of Dangerous Goods for Transport by Road and Rail.

SANS 10231 : 2018 : Transport of dangerous goods - Operational requirements for road vehicles.

SANS 10234 : 2008 : Globally Harmonized System of classification and labelling of chemicals (GHS).

SANS 11014 : 2010 : Safety Data Sheets for chemical Products.

REACH Regulation (EC) No 1907/2006

This product contains only components that have been either pre-registered, registered, are exempt from registration, are regarded as registered or are not subject to registration according to Regulation (EC) No. 1907/2006 (REACH)., The aforementioned indications of the REACH registration status are provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. It is the buyer's/user's responsibility to ensure that his/her understanding of the regulatory status of this product is correct.

Seveso III: Directive 2012/18/EU

Listed in Regulation: Not applicable

Chemical safety assessment:

Not assessed.

16 Other information

Other information

Full text of H & P-Statements referred to under sections 2:

Hazard statements

H303 May be harmful if swallowed
H318 Causes serious eye damage

Precautionary statements

Prevention:

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/physician.

Compiled by R. van Rooyen, SHEQ and. E Le Sar, Director

MANUFACTURER/SUPPLIER DISCLAIMER:

IMPORTANT: The information contained in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions or handling, storage and disposal of this product are beyond the control of the manufacturer/supplier, they are not held responsible for loss, injury, and expense arising out of the product's use. No warranty, expressed or inferred, regarding the product described in this SDS shall be created or inferred by any statement in this SDS.

Revision History

Revision:	Date:	Change:
1.0	2018/12/26	Preparation of the safety data sheet according to Regulation (EC) No 1907/2006 of the European Parliament and of the Council