

AMMONIUM BISULPHITE SOLUTION (70%)

Safety Data Sheet

Date of issue: 01/09/2021

Revision No.:0

SECTION 1: Identification

1.1. Identification

Product name : Ammonium Bisulphite Solution, 70%
CAS-No. : 10192-30-0
Synonym Name : Ammonium Monosulfite solution; Ammonium Hydrogen Sulfite Solution
Formula : NH_4HSO_3

1.2. Recommended use and restrictions on use

Recommended use : Industrial use

1.3. Supplier

Manufacturer Name : **National Company for sulphur products**
Address: National Company For Sulphur Products,
 Head Office: P.O Box 2951, Riyadh 11461
 Email: ncsp@ncsp.com.sa
 Tel: 011 4647711 Fax: 2170866
Factory: 3rd Industrial Area - Dammam

1.4. Emergency telephone number

Emergency number : Tel. 011 4647711 Fax: 2170866

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin corrosion/ irritation Category 2 : H31 Causes skin irritation
Eye damage/eye irritation Category 2A : H319 Causes serious eye irritation

2.2. GHS Label elements, including precautionary

statements GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Danger
Hazard statements (GHS-US) : H315 - Causes skin irritation
 H319 - Causes serious eye irritation

Precautionary statements (GHS-US)

If on skin : Wash with plenty of water. Take off contaminated clothing and wash before reuse.
If skin irritation occurs : get medical advice/attention.
If in eyes : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If eye irritation persists, get medical advice/attention. Wash hands and face thoroughly with soap and water after handling. Wear neoprene rubber gloves and apron, chemical goggles and full-face shield.
 Do not allow release to aquatic waterway.

2.3. Other hazards which do not result in classification

None



SECTION 3: Composition/Information on ingredients

3.1. Substances

Hazardous Ingredients:

Chemical name	Common name(s)	CAS number	Concentration (w/w%)
Ammonium hydrogensulphite	Ammonium bisulphite	10192-30-0	70 ± 2 %

SECTION 4: First-aid measures

4.1. Description of first aid measures

Inhalation : Remove source of exposure or move person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor. If breathing has stopped, trained personnel should begin rescue breathing or if the heart has stopped, immediately start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Avoid mouth to mouth contact by using a barrier device.

Ingestion Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor. If vomiting occurs naturally, lie on your side, in the recovery position.

Skin contact Avoid direct contact : Wear chemical protective clothing, if necessary. Take off immediately contaminated clothing, shoes and leather goods. Rinse skin with lukewarm, gently flowing water / shower for 30 minutes. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before re-use, or discard.

Eye contact Avoid direct contact: Wear chemical protective gloves, if necessary. Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for 30 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. Immediately call a POISON CENTER or doctor.

Most important symptoms and effects, both acute and delayed:

- Inhalation** : Causes severe burns to the mouth and throat (mist).
Ingestion : Causes burns to the mouth and throat.
Skin contact : Causes severe skin burns.
Eye contact : Causes serious eye damage.
Further information: For further information see Section 11 Toxicological Information.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media** : Extinguish fire using extinguishing agents suitable for the surrounding fire
Unsuitable extinguishing media : Not available.
Specific hazards arising from the chemical : In the event of fire oxides of sulphur, nitrogen, and ammonia may be released.
Special protective equipment for fire-fighters : Wear NIOSH-approved self-contained breathing apparatus and chemical-protective clothing.

NFPA Rating



SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear appropriate personal protective equipment (See Section 08 Exposure Controls and Personal Protection). Stay upwind, ventilate area. Do not breathe vapours, fumes, and mists. Do not use material handling equipment with exposed metal surfaces.

Environmental Precautions: Prevent material from entering waterways, sewers or confined spaces. Notify local health and wildlife officials. Notify operators of nearby water intakes.

Methods and Materials for Containment and Cleaning Up : SMALL SPILLS: Stop or reduce leak if safe to do so. Clean up spill with non-reactive absorbent and place in suitable, covered, labeled containers. Flush area with water. Contaminated absorbent material may pose the same hazards as the spilled product. **LARGE SPILLS:** Contact fire and emergency services and supplier for advice.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for Unique Hazards	: Not applicable.
Practices to Minimize Risk	: Wear appropriate protective equipment when performing maintenance on contaminated equipment. Wash hands thoroughly before eating or smoking after handling this material.
Special Handling Equipment	: Not applicable.

7.2. Conditions for safe storage

Store in a cool, dry, well-ventilated area, out of direct sunlight, away from heat sources and incompatible materials. Always store in original labeled container. Keep containers tightly closed when not in use and when empty. Empty containers may contain hazardous residues. Protect label and keep it visible. Do not transfer to metal containers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits

Component	Regulation	Type of listing	Value
Sulphur dioxide (decomposition product)	ACGIH	TWA	2 ppm (5.2mg/m ³)
	ACGIH	STEL	5 ppm (13 mg/m ³)

8.2. Appropriate engineering controls

Ventilation Requirements : Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions should be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.

Other : An emergency shower and eyewash station should be available, tested, and be in close proximity to the product being handled in accordance with provincial regulations..

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Gloves. Safety glasses.



Hand protection	: Wear protective gloves
Eye protection	: Chemical goggles or safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: Respiratory protection not required in normal conditions
Other information	: Do not eat, drink or smoke during use

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	- Liquid
Colour	- Clear. Pale yellow
Odour	- Sulphurous
Odour threshold	- Not available
Melting point / freezing point	- 15 °C

Property

pH	- 4.5-5.5
Initial boiling point and boiling range	- 104-110 °C
Flash point	- Not available



Evaporation rate	- Not available
Flammability	- Not applicable
Upper flammable limit	- Not available
Lower flammable limit	- Not available
Vapour pressure	- Not available
Relative density	- Not applicable
Solubility	- Soluble in water
Partition coefficient: n- octanol/water	- Not available
Auto-ignition temperature	- Not available
Decomposition temperature	- Not available
Viscosity	- Not available
Specific gravity	- 1.38-1.40 @ 20 °C
Formula	- NH ₄ HSO ₃
Molecular weight	- 99.11 g/mol

SECTION 10: Stability and reactivity

10.1. Reactivity

May be corrosive to metals

10.2. Chemical stability

This product is stable if stored according to the recommendations in Section

10.3. Incompatible materials

Acids, such as sulphuric, nitric, hydrochloric, phosphoric, fluoro-silicic (HFSA), sulphonic, acetic, citric, oxalic, and formic. Oxidizing agents, such as oxygen, hydrogen peroxide, sulphuric and nitric acids, hypochlorites and permanganates.

10.4. Hazardous decomposition products

Thermal decomposition may produce oxides of sulphur, nitrogen, and ammonia.

10.5. Conditions to avoid :

Avoid contact with incompatible materials. Do not heat.

SECTION 11: Toxicological information

Component	Route	Species	Value	Exposure time
Ammonium Bi Sulphite (structural analogue)	Oral	Rat	2610 mg/kg	4 hour
	Dermal	Rat	>2000 mg/kg	
	Inhalation	Rat	>5.5 mg/L air	

Toxic Health Effect Summary

Chemical characteristics

No known effects

Skin

Causes severe skin burns.

Ingestion

Causes burns to the mouth and throat.

Inhalation

Causes severe burns to the mouth and throat (mist).

Eye contact

Causes serious eye damage.

Sensitization

This product and its components at their listed concentration have no known sensitizing effects.

Mutagenicity

This product and its components at their listed concentration have no known mutagenic effects.



Carcinogenicity	IARC has classified bisulphate's as group 3, not classifiable as to its carcinogenicity to humans.
Reproductive toxicity	This product and its components at their listed concentration have no known reproductive effects.
Specific organ toxicity	This product and its components at their listed concentration have no known effects on specificorgans.
Aspiration hazard	Not available
Synergistic materials	Not available

SECTION 12: Ecological information

Ecotoxicity	: There is no available toxicity data for this product.
Biodegradability	: The domestic substance list categorizes ammonium bisulphate as persistent. Bioaccumulation The domestic substance list categorizes ammonium bisulphate as non- bio accumulative.
Mobility	: This product is water soluble, and will not adsorb to soil and may contaminate ground water.
Other adverse effects	: The domestic substance list categorizes ammonium bisulphate as inherently toxic to the environment. Sulphites are reducing agents and will consume dissolved oxygen.

SECTION 13: Disposal considerations

Waste From Residues / Unused Products	: Dispose in accordance with all federal, provincial, and local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	: Do not remove label, follow label warnings even after the container is empty. Empty containers should be recycled or disposed of at an approved waste handling facility.

SECTION 14: Transport information

UN number	: UN2693
UN proper shipping name and description	: BISULPHITES, AQUEOUS SOLUTION, N.O.S. (Ammonium Bisulphite)
Transport hazard class(es)	: 8
Packing group	: III
Excepted quantities	: 5L
Environmental hazards	: Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
Special precautions	: 16 (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the hazard or hazards posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(ii)(A) of Part 3 (Documentation). The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4 (Dangerous Goods Safety Marks).
Transport in bulk	: ERAP index: not available MARPOL 73/78 and IBC Code: This product is not listed in Chapter 17 of the IBC Code.
Additional information	: Secure containers (full or empty) during shipment and ensure all caps, valves, or closures are secured in the closed position. .



TDG PRODUCT CLASSIFICATION

: This product has been classified on the preparation date specified at section 16 of this SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and published test data regarding the classification of this product are listed in the references at section 16 of this SDS.

SECTION 15: Regulatory Information

NOTE: THE PRODUCT LISTED ON THIS SAFETY DATA SHEET HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN HAZARDOUS PRODUCTS REGULATIONS. THIS SAFETY DATA SHEET CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS. All components of this product appear on the domestic substance list

EU-Regulations

No additional information available

US-Regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

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Revision No. : 0
Prepared by : National company for sulphur products- Riyadh

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text