SECTION-1: Identification of the substance / mixture and the company / undertaking

Catalogue Number	CS-BX-01375
Product Name	Nitrosylsulfuric acid solution 40 wt. % in sulfuric acid
CAS No.	7782-78-7
Category	Impurity
Synonyms	nitrous sulfuric anhydride; Nitrosylsulfuric acid; Nitrosyl bisulfate Nitrosyl hydrogen sulfate Nitrosylsulfuric acid Nitrosylsulfuric acid (NOHSO4)
Brand	Clearsynth Labs Ltd.
Identified uses	Laboratory Chemicals
Uses advised against	Not available
Company	Clearsynth Labs Ltd. Mumbai, India
Emergency Phone #	+91-22-245045900
REACH No.	Not available

SECTION 2: Hazards identification

Disclaimer: This is sample MSDS. Please email **sales@clearsynth.com** for more details.

2.1 Classification of the substance or mixture-Regulation (EC) No 1272/2008:

Not available

2.2 Label Elements

Signal Word: Warning

Hazard Statement(s)

Code	Statement
H271	Not available

H272	Not available
H301	Not available
H311	Not available
H314	Not available
H318	Causes serious eye damage.
H331	Not available

Precautionary Statement(s)

Code	Statement
P210	Not available
P220	Not available
P260	Not available
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P262	Not available
P264	Wash hands thoroughly after handling.
P264+P265	Not available
P270	Not available
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P283	Not available
P301+P316	Not available
P301+P330+P331	Not available
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P302+P361+P354	Not available
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P354+P338	Not available
P306+P360	Not available
P316	Not available
P317	Not available
P321	Specific treatment (see … on this label).

P330	Not available
P361+P364	Not available
P363	Not available
P370+P378	Not available
P371+P380+P375	Not available
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P420	Not available
P501	Dispose of contents/container in accordance with local/regional/national/international regulatio

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : Nitrosylsulfuric acid solution 40 wt. % in sulfuric acid
CAS Number : 7782-78-7
Molecular Formula : HNO5S
Molecular Weight : 127.08
Parent Chemical : -
Synonyms : nitrous sulfuric anhydride; Nitrosylsulfuric acid;
Nitrosyl bisulfate
Nitrosyl hydrogen sulfate
Nitrosylsulfuric acid
Nitrosylsulfuric acid (NOHSO4)
Concentration : Not available

SECTION 4: First aid measures

SECTION 4: First-aid measures

4.1 Description of first aid measures
General advice: Remove contaminated clothing and shoes. Seek medical attention if symptoms occur or persist.
Inhalation: Move person to fresh air. Keep at rest. If breathing is difficult, seek medical attention.
Skin contact: Immediately flush skin with plenty of water for at least 15 minutes. Wash with soap and water. Seek medical attention for burns or persistent irritation.
Eye contact: Rinse cautiously with water for at least 15 minutes, lifting upper and lower eyelids. Remove contact lenses if present and easy to do. Seek immediate medical attention.
Ingestion: Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed
Corrosive effects: severe skin burns and eye damage. Respiratory tract irritation; possible delayed pulmonary effects. Gastrointestinal burns if swallowed. Symptoms may be delayed.

4.3 Indication of any immediate medical attention and special treatment needed
Treat symptomatically. Chemical burns require prompt medical evaluation. Not available for specific antidote information.

SECTION 5: Firefighting measures

SECTION 5: Fire-fighting measures

5.1 Extinguishing media
Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture
Not combustible. Contact with metals may generate flammable hydrogen gas. Thermal decomposition or reaction may release hazardous gases/vapors (nitrogen oxides and sulfur oxides).

5.3 Advice for firefighters
Wear self-contained breathing apparatus (SCBA) and full protective gear. Use water spray to cool containers exposed to fire. Prevent contaminated fire water from entering drains or waterways.

SECTION 6: Accidental release measures

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Evacuate unnecessary personnel. Ensure adequate ventilation. Avoid breathing vapors/mist. Avoid contact with skin and eyes. Wear appropriate PPE (acid-resistant gloves, protective clothing, chemical splash goggles/face shield).

6.2 Environmental precautions
Prevent entry into sewers, surface water, and soil. Notify authorities if release enters the environment.

6.3 Methods and material for containment and cleaning up
Contain spill with inert, acid-resistant absorbent. Carefully collect into compatible, corrosion-resistant containers for disposal. Do not add water directly to spilled material; if dilution is necessary, add product to water slowly under controlled conditions. Neutralization: Only by trained personnel using suitable neutralizing agent; reaction may be vigorous.

6.4 Reference to other sections
See Section 8 for personal protective equipment and Section 13 for disposal considerations.

SECTION-7: Handling and storage

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Handle in a chemical fume hood or with local exhaust ventilation. Avoid breathing vapors/mist. Avoid contact with skin, eyes, and clothing. Use corrosion-resistant equipment. Do not mix with incompatible materials. When diluting, add acid to water slowly with stirring; never add water to acid.

7.2 Conditions for safe storage, including any incompatibilities

Store in tightly closed, corrosion-resistant container in a cool, dry, well-ventilated area. Protect from moisture. Keep away from heat and direct sunlight. Segregate from bases, oxidizable organics, reducing agents, metals, and water-reactive materials. Keep secondary containment.

7.3 Specific end use(s)
Laboratory/research use. Not available for additional specific uses.

SECTION 8: Exposure controls / personal protection

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Occupational exposure limits: Not available for this mixture. Components: Not available.

8.2 Exposure controls
Engineering controls: Use local exhaust ventilation or fume hood. Provide eyewash station and safety shower.
Personal protective equipment (PPE):
- Eye/face protection: Chemical splash goggles and face shield.
- Skin protection: Acid-resistant gloves (material selection based on permeation data; not available). Wear acid-resistant apron and protective clothing.
- Respiratory protection: If ventilation is inadequate or aerosol/mist may form, use appropriate respiratory protection per applicable regulations; specific selection depends on exposure (not available).
Hygiene measures: Wash hands after handling. Remove contaminated clothing and wash before reuse. Do not eat, drink, or smoke when using this product.
Environmental exposure controls: Avoid release to the environment; use secondary containment where appropriate.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Test	Result
Appearance	No data available
IR spectrum	No data available
pH	No data available
Solubility	No data available

Property	Value
a) Physical State	No data available
b) Color	No data available
c) Odor	No data available
d) pH	No data available

Property	Value
e) Vapour Pressure	No data available
f) Viscosity	No data available
g) Initial Boiling Point and boiling range	No data available
h) Melting Point / Freezing Point	No data available
i) Auto Ignition Temperature	No data available
j) Flash Point	No data available
k) Explosion Limit, Lower	No data available
l) Explosion Limit, Upper	No data available
m) Decomposition Temperature	No data available
n) Loss on Drying	No data available
o) Relative Density	No data available
p) Solubility (in DMSO)	No data available
q) Oxidizing Properties	No data available

SECTION 10: Stability and reactivity

SECTION 10: Stability and reactivity

10.1 Reactivity
Strongly acidic and reactive. May react vigorously with bases and water (heat generation).

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
Violent reaction with bases and many reactive chemicals. Contact with metals may liberate hydrogen gas. Reaction with water is exothermic.

10.4 Conditions to avoid
Heat, moisture, contact with water, and incompatible materials.

10.5 Incompatible materials
Bases/alkalis, amines, strong reducing agents, many organic materials, metals, and water-reactive substances. Not available for complete incompatibility list.

10.6 Hazardous decomposition products
Nitrogen oxides (NOx), sulfur oxides (SOx). Other decomposition products: Not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- Acute toxicity: No data available.
- Skin corrosion/irritation: No data available.
- Serious eye damage/eye irritation: No data available.
- Respiratory or skin sensitization: No data available.
- Germ cell mutagenicity: No data available.
- Carcinogenicity: No data available.
- Reproductive toxicity: No data available.
- STOT-single exposure: No data available.
- STOT-repeated exposure: No data available.
- Aspiration hazard: No data available.

Likely routes of exposure
- No data available.

Symptoms related to the physical, chemical and toxicological characteristics
- Not available.

SECTION 12: Ecological information

SECTION 12: Ecological information

12.1 Toxicity
No data available.

12.2 Persistence and degradability
No data available.

12.3 Bioaccumulative potential
No data available.

12.4 Mobility in soil
No data available.

12.5 Results of PBT and vPvB assessment
Not available.

12.6 Endocrine disrupting properties
No data available.

12.7 Other adverse effects
Strong acidity may cause harmful effects to aquatic organisms due to pH shift. No further data available.

SECTION 13: Disposal considerations

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Dispose of contents/container in accordance with local/regional/national/international regulations. Do not discharge to drains.
Waste treatment: Neutralization and disposal should be performed by qualified personnel at a licensed facility.
Empty containers may retain corrosive residues.

Contaminated packaging: Dispose of as hazardous waste unless properly cleaned. Not available for specific waste codes.

SECTION 14: Transport information

SECTION 14: Transport information

14.1 UN number
Not available.

14.2 UN proper shipping name
Not available.

14.3 Transport hazard class(es)
Not available.

14.4 Packing group
Not available.

14.5 Environmental hazards
Not available.

14.6 Special precautions for user
Transport in corrosion-resistant, tightly closed containers. Protect from damage and moisture. Keep away from incompatible materials.

14.7 Maritime transport in bulk according to IMO instruments
Not available.

SECTION 15: Regulatory information

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Regulatory status: Not available. Ensure compliance with applicable chemical inventory and workplace regulations in the region of use.

15.2 Chemical safety assessment
No data available.

SECTION 16: Other information

SECTION 16: Other information

Product name: Nitrosylsulfuric acid solution 40 wt. % in sulfuric acid
Catalog no.: CS-BX-01375
CAS no.: 7782-78-7
Synonyms: nitrous sulfuric anhydride; Nitrosylsulfuric acid; Nitrosyl bisulfate; Nitrosyl hydrogen sulfate; Nitrosylsulfuric acid (NOHSO4)
Supplier: Clearsynth Labs Ltd., Mumbai, India
Emergency phone: +91-22-245045900

Revision date: Not available

Disclaimer: The information provided is believed to be accurate based on available product information, but no warranty is expressed or implied. Users are responsible for determining suitability and for compliance with applicable laws and regulations.

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