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

Catalogue Number	CS-M-02932-100GM
Product Name	VINYLSULFONE, 97%
CAS No.	77-77-0
Category	Fine Chemicals
Synonyms	Vinyl Sulfone (stabilized with HQ)
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:

Skin irritation (Category 2)

2.2 Label Elements

Signal Word: Warning

Hazard Statement(s)

Code	Statement
H300+H310	Not available
H300	Not available
H310	Not available
H314	Not available

H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	Not available
H341	Not available

Precautionary Statement(s)

Code	Statement
P203	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.
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
P316	Not available
P317	Not available
P318	Not available
P319	Get medical help if you feel unwell.
P321	Specific treatment (see … on this label).
P330	Not available
P332+P317	If skin irritation occurs: Get medical help.
P361+P364	Not available

P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Not available
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulatio

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : VINYLSULFONE, 97%
CAS Number : 77-77-0
Molecular Formula : C4H6O2S
Molecular Weight : 118.15
Parent Chemical : .
Synonyms : Vinyl Sulfone (stabilized with HQ)
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 persist or develop.
- Inhalation: Move person to fresh air. Keep at rest. If breathing is difficult, seek medical attention.
- Skin contact: Wash with plenty of soap and water. Seek medical attention if irritation persists.
- Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention.
- Ingestion: Rinse mouth. Do NOT induce vomiting unless directed by medical personnel. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed
- Not available.

4.3 Indication of any immediate medical attention and special treatment needed
- Treat symptomatically. No data available.

SECTION 5: Firefighting measures

SECTION 5: Fire-fighting measures

5.1 Extinguishing media
- Suitable extinguishing media: Use extinguishing measures appropriate to surrounding fire (e.g., water spray, alcohol-resistant foam, dry chemical, carbon dioxide).
- Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture
- Hazardous combustion products: Not available.

5.3 Advice for firefighters
- Wear self-contained breathing apparatus (SCBA) and full protective gear.
- Cool containers with water spray if exposed to fire.
- Prevent fire-fighting 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.
- Avoid breathing dust/vapors/mist.
- Use appropriate personal protective equipment (see Section 8).
- Ensure adequate ventilation.

6.2 Environmental precautions
- Avoid release to the environment.
- Prevent entry into drains, sewers, and waterways.

6.3 Methods and material for containment and cleaning up
- Contain spill. Collect using non-sparking tools where applicable.
- Absorb with inert material (e.g., sand, earth, vermiculite) and place in suitable, labeled container for disposal.
- Clean contaminated area with water and detergent as appropriate.

6.4 Reference to other sections
- See Section 8 for exposure controls/personal protection and Section 13 for disposal considerations.

SECTION-7: Handling and storage

SECTION 7: Handling and storage

7.1 Precautions for safe handling
- Avoid contact with skin and eyes.
- Avoid breathing dust/vapors/mist.
- Use only with adequate ventilation.
- Keep container tightly closed when not in use.
- Practice good industrial hygiene; wash hands after handling.

7.2 Conditions for safe storage, including any incompatibilities
- Store in a cool, dry, well-ventilated place.
- Keep away from heat, sparks, open flames, and sources of ignition.
- Protect from moisture.
- Incompatible materials: Not available.

7.3 Specific end use(s)
- Fine chemical / laboratory use. No further information available.

SECTION 8: Exposure controls / personal protection

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
- Occupational exposure limits: No data available.
- Biological limit values: No data available.

8.2 Exposure controls
- Engineering controls: Provide adequate general and/or local exhaust ventilation to control airborne levels.

Personal protective equipment (PPE)
- Eye/face protection: Safety glasses with side shields or chemical splash goggles.
- Skin protection: Protective gloves (material not specified; select based on risk assessment and compatibility). Protective clothing as needed.
- Respiratory protection: If ventilation is inadequate or exposure is possible, use appropriate respiratory protection per applicable standards.
- Hygiene measures: Wash hands and exposed skin thoroughly after handling. Remove contaminated clothing and wash before reuse.

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
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

Property	Value
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
- No data available.

10.2 Chemical stability
- Stable under recommended storage conditions. No data available.

10.3 Possibility of hazardous reactions
- No data available.

10.4 Conditions to avoid
- Heat, flames, ignition sources, and incompatible materials. Avoid moisture. No further data available.

10.5 Incompatible materials
- Not available.

10.6 Hazardous decomposition products
- Not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
- Acute toxicity: A SERIES OF VINYL SULFONE MOLLUSCIDAL AGENTS WAS SHOWN TO EXHIBIT A POSITIVE CORRELATION BETWEEN SULFHYDRYL REACTIVITY & MOLLUSCICIDAL POTENCY. HIGH CONCN OF VINYL SULFONE WERE REQUIRED TO INHIBIT ACTIVITY OF MALIC DEHYDROGENASE. NO EFFECT ON ENDOGENOUS RESP OBSERVED. SIMILARLY, NO EFFECT ON ENDOGENOUS RESP OR PYRUVATE METAB WAS OBSERVED IN RATS. A SUBLETHAL DOSE OF VINYL SULFONE INCR BLOOD BUN & DECR URINARY OUTPUT WHILE PRODUCING NO EFFECT ON SGOT & SGPT ACTIVITY OR ON HEMATOCRIT VALUES IN RATS. THESE DATA INDICATE THAT THE TOXICITY OF VINYL SULFONE IS NOT RELATED TO INHIBITION OF ENDOGENOUS RESP IN EITHER SNAILS OR RATS. IT WAS POSTULATED THAT THE TOXICITY OF SUBLETHAL DOSES OF VINYL SULFONE IS CAUSED BY IMPAIRMENT OF NORMAL RENAL FUNCTION. For more Non-Human Toxicity Excerpts (Complete) data for VINYL SULFONE (6 total), please visit the HSDB record page.
- Skin corrosion/irritation: No data available.

- Serious eye damage/eye irritation: No data available.
- Respiratory or skin sensitization: No data available.
- Germ cell mutagenicity: ... The mutagenicity & clastogenicity of cmpds capable of Michael-type reactions /has been evaluated/. These cmpds, including acrylamide, several acrylate & methacrylate esters, vinyl sulfones, & phorone, have been evaluated using TK+/- -3.7.2C mouse lymphoma cells. Mutagenic chemicals induced increases in the number of small colony tk- deficient mutants. This suggested a clastogenic mechanism which was confirmed by demonstrating increases in aberrations & micronucleus frequencies in cultured cells. Vinyl sulfone was found to be the most effective chemical mutagen with induction of genotoxic effects at concns as low as 0.25 ug/ml. The other cmpds also produced positive results, but at higher concns. Since these cmpds are known to deplete glutathione, phorone, a model glutathione depleter, was examined & found to produce similar effects as the other cmpds in mouse lymphoma cells. These results suggest that the direct-acting Michael-type reaction has activity relevant to producing a genotoxic effect. Since acrylamide has been found to be a potent germ cell mutagen, this mechanism may be also relevant in the induction of heritable mutagenic risk.
- 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
- ... The mutagenicity & clastogenicity of cmpds capable of Michael-type reactions /has been evaluated/. These cmpds, including acrylamide, several acrylate & methacrylate esters, vinyl sulfones, & phorone, have been evaluated using TK+/- -3.7.2C mouse lymphoma cells. Mutagenic chemicals induced increases in the number of small colony tk- deficient mutants. This suggested a clastogenic mechanism which was confirmed by demonstrating increases in aberrations & micronucleus frequencies in cultured cells. Vinyl sulfone was found to be the most effective chemical mutagen with induction of genotoxic effects at concns as low as 0.25 ug/ml. The other cmpds also produced positive results, but at higher concns. Since these cmpds are known to deplete glutathione, phorone, a model glutathione depleter, was examined & found to produce similar effects as the other cmpds in mouse lymphoma cells. These results suggest that the direct-acting Michael-type reaction has activity relevant to producing a genotoxic effect. Since acrylamide has been found to be a potent germ cell mutagen, this mechanism may be also relevant in the induction of heritable mutagenic risk.

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
- No data available.

12.6 Endocrine disrupting properties
- No data available.

12.7 Other adverse effects
- No 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.
- Contaminated packaging: Dispose of as unused product or according to local requirements.
- Waste codes: Not available.

SECTION 14: Transport information

SECTION 14: Transport information

- UN number: Not available.
- UN proper shipping name: Not available.
- Transport hazard class(es): Not available.
- Packing group: Not available.
- Environmental hazards: Not available.
- Special precautions for user: Not available.
- 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 listings (e.g., GHS/CLP/OSHA/TSCA/REACH/DSL/EINECS/ENCS/AICS): Not available.

15.2 Chemical safety assessment
- No data available.

SECTION 16: Other information

SECTION 16: Other information

- Product name: VINYLSULFONE, 97%
- CAS No.: 77-77-0
- Synonyms: Vinyl Sulfone (stabilized with HQ)
- Supplier: Clearsynth Labs Ltd., Mumbai, India

- Emergency phone: +91-22-245045900

Disclaimer
- The information provided is based on data available at the time of preparation and is believed to be accurate; however, it is provided without warranty. Users are responsible for determining suitability for their particular application and for compliance with applicable laws and regulations.

Revision information
- Revision date: Not available.
- SDS version: Not available.

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