Safety Data Sheet (SDS)

Section 1: Identification

1.1 Product Identification

Product Name: 5-Methyl-3-vinyloxazolidin-2-one

Product Number: Sigma-1492025180

Brand: Sigma

CAS Number: 3395-98-0

EC Number: Not specified

Molecular Formula: $C_6H_9NO_2$

Molecular Weight: 127.14 g/mol

Website: Sigma Chemical

1.2 Supplier Details

Company Name: Sigma Chemical Co., Ltd.

Address: Room 2-1-2301, Jiahe Xinxing, No.130, Shandong Road, Shibei District, Qingdao City, Shandong Province, China

Phone Number: +8618661891880

Email: chemweb3@foxmail.com

Business Hours:Monday to Friday: 9:00 AM - 6:00 PMSaturday: 9:00 AM - 1:00 PMSunday: Closed

1.3 Emergency Contact Number

Emergency Contact: +8618661891880

1.4 Recommended Use and Restrictions

Recommended Use: For research and development purposes only. Not for use as a drug, household product, or in any other unauthorized application.

Section 2: Hazard Identification

2.1 GHS Classification

Acute Toxicity:Oral: Category 4, H302 (Harmful if swallowed)Inhalation: Category 4, H332 (Harmful if inhaled)

Skin Corrosion/Irritation: Category 2, H315 (Causes skin irritation)

Serious Eye Damage/Eye Irritation: Category 1, H318 (Causes serious eye damage)

Skin Sensitization: Category 1, H317 (May cause an allergic skin reaction)

Specific Target Organ Toxicity (Repeated Exposure): Category 3, H335 (May cause respiratory irritation)

Hazardous to the Aquatic Environment: Chronic Hazard, Category 2, H411 (Toxic to aquatic life with long-lasting effects)

2.2 GHS Label Elements

Pictogram: GHS05, GHS07, GHS09

Signal Word: Danger

Hazard Statements:

H302: Harmful if swallowed

H315: Causes skin irritation

H317: May cause an allergic skin reaction

H318: Causes serious eye damage

H332: Harmful if inhaled

H335: May cause respiratory irritation

H411: Toxic to aquatic life with long-lasting effects

Precautionary Statements:**Prevention**:

P260: Do not breathe dust/fume/gas/mist/vapours/spray

P264: Wash thoroughly after handling

P270: Do not eat, drink, or smoke when using this product

Response:

P301+P312: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell

P304+P312: IF INHALED: Call a POISON CENTER/doctor if you feel unwell

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a doctor immediately.

Disposal:P501: Dispose of contents/container in accordance with local/regional/national/international regulations

2.3 Physical and Chemical Hazards

Physical and Chemical Hazards: Non-flammable. Ignition sources may release hazardous combustion products.

2.4 Health Hazards

H302: Harmful if swallowed

H315: Causes skin irritation

H317: May cause an allergic skin reaction

H318: Causes serious eye damage

H332: Harmful if inhaled

H335: May cause respiratory irritation

H411: Toxic to aquatic life with long-lasting effects

2.5 Environmental Hazards

No environmental hazards identified based on current information.

Section 3: Composition/Information on Ingredients

3.1 Substance

Synonyms: 5-Methyl-3-vinyloxazolidin-2-one,

3-Ethenyl-5-methyl-1,3-oxazolidin-2-one

Molecular Formula: $C_6H_9NO_2$

Molecular Weight: 127.14 g/mol

CAS Number: 3395-98-0

EC Number: Not specified

Hazardous Components:

Component: 5-Methyl-3-vinyloxazolidin-2-one

Classification:Acute Toxicity: Category 4 (Oral), H302

Acute Toxicity: Category 4 (Inhalation), H332

Skin Corrosion/Irritation: Category 2, H315

Serious Eye Damage/Eye Irritation: Category 1, H318

Skin Sensitization: Category 1, H317

Specific Target Organ Toxicity (Repeated Exposure): Category 3, H335

Hazardous to the Aquatic Environment: Chronic Hazard, Category 2, H411

Section 4: First Aid Measures

4.1 First Aid Measures

Inhalation: Remove victim to fresh air. If feeling unwell, call a POISON CENTER/doctor.

Skin Contact: Immediately wash with plenty of water for at least 15 minutes. Remove contaminated clothing and wash before reuse. Get medical attention if irritation persists.

Eye Contact: Rinse immediately with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Get medical attention if eye irritation persists.

Ingestion: Do NOT induce vomiting. Rinse mouth with water. Call a POISON CENTER/doctor if feeling unwell.

4.2 Most Important Symptoms and Effects

Symptoms: Difficulty in breathing. Symptoms of overexposure may include headache, dizziness, tiredness, nausea, and respiratory irritation.

4.3 Immediate Medical Attention and Special Treatment

Medical Treatment: Treat symptomatically. Ensure vital functions are maintained. No known specific antidote.

Section 5: Firefighting Measures

5.1 Extinguishing Media

Suitable Extinguishing Agents: Use fire extinguishing methods suitable for the surrounding environment. Solid water stream may be used.

5.2 Specific Hazards Arising from the Chemical

Hazardous Combustion Products: Carbon monoxide (CO), Carbon dioxide (CO_2), Gaseous hydrogen fluoride (HF)

5.3 Firefighting Precautions

Protective Equipment: Wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear.

Section 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment as required. Ground all equipment used when handling the product. Avoid contact with skin, eyes, or clothing. Remove all sources of ignition. Take precautionary measures against static discharge.

Environmental Precautions: Prevent seepage into sewage systems, workpits, and surface or ground water.

6.2 Methods and Materials for Containment and Clean-Up

Containment: For small leaks, absorb with inert absorbent material (e.g., sand, diatomite, acid binders, universal binders) or collect in a tightly sealable container. For large leaks, enclose with banks to prevent outflow and lead the leakage to a safe place for disposal.

Clean-Up: Dispose of absorbed material in accordance with local regulations.

6.3 Reference to Other Sections

Other Sections: See Section 8 for personal protection equipment and Section 13 for disposal considerations.

Section 7: Handling and Storage

7.1 Handling Precautions

Handling: Ensure adequate ventilation. Wear personal protective equipment/face protection. Use spark-proof tools and explosion-proof equipment. Keep away from open flames, hot surfaces, and sources of ignition. Avoid contact with skin, eyes, or clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid ingestion and inhalation. Take precautionary measures against static discharge.

7.2 Storage Conditions

Storage: Store in a dry, cool, and well-ventilated place. Keep container tightly closed. Keep away from heat, sparks, and flame. Store in a flammable area. Keep container tightly closed in a dry and well-ventilated place. Incompatible materials include strong oxidizing agents, strong acids, strong bases, strong reducing agents, and water.

Section 8: Exposure Controls/Personal Protection

8.1 Control Parameters

Exposure Limits: No occupational exposure limits established by regional regulatory authorities.

8.2 Exposure Controls

Engineering Measures: Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment:

Respiratory Protection: Suitable respiratory protection for higher concentrations or long-term exposure.

Hand Protection: Chemical-resistant protective gloves (e.g., nitrile rubber).

Eye Protection: Safety glasses with side-shields (frame goggles).

Body Protection: Chemical-resistant protective clothing.

Section 9: Physical and Chemical Properties

Form: Liquid

Color: Clear

Odor: Characteristic

pH Value: Not determined

Melting Point: Not applicable

Boiling Point: Not determined

Flash Point: Not determined

Vapour Pressure: Not determined

Density: Not determined

Relative Density: Not determined

Solubility in Water: Sparingly soluble

Solubility in Organic Solvents: Soluble

Partition Coefficient (n-octanol/water): Not applicable for mixtures

Viscosity: Not determined

Section 10: Stability and Reactivity

10.1 Reactivity

No hazardous reactions if stored and handled as recommended.

10.2 Chemical Stability

The product is stable if stored and handled as recommended.

10.3 Possibility of Hazardous Reactions

The product can polymerize if the shelf life or storage temperature is greatly exceeded. Heat develops during polymerization. Reacts with peroxides and other radical components.

10.4 Conditions to Avoid

See SDS section 7 - Handling and Storage.

10.5 Incompatible Materials

Substances to avoid: Free radical initiators.

10.6 Hazardous Decomposition Products

No hazardous decomposition products if stored and handled as recommended.

Section 11: Toxicological Information

Acute Toxicity: LD50 (oral, rat): >300-<2000 mg/kg bw (OECD Guideline 423)

Irritation: Causes skin irritation and serious eye damage.

Skin Sensitization: May cause an allergic skin reaction.

Specific Target Organ Toxicity (Repeated Exposure): May cause respiratory irritation.

Carcinogenicity: No classification criteria met.

Mutagenicity: No classification criteria met.

Reproductive Toxicity: No classification criteria met.

Developmental Toxicity: No classification criteria met.

Section 12: Ecological Information

Toxicity to Aquatic Life: Toxic to aquatic life with long-lasting effects.

Persistence and Degradability: Not readily biodegradable.

Bioaccumulative Potential: Does not significantly accumulate in organisms.

Mobility in Soil: The substance will not evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is not significant.

PBT and vPvB Assessment: The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

Section 13: Disposal Considerations

Waste Treatment Methods: Dispose of contents/container in accordance with local/regional/national/international regulations.

Contaminated Packaging: Uncontaminated packaging can be re-used. Packs that cannot be cleaned should be disposed of in the same manner as the contents.

Section 14: Transport Information

UN Number: UN3082

UN Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (contains 5-Methyl-3-vinyloxazolidin-2-one)

Transport Hazard Class: 9

Packing Group: III

Environmental Hazards: Yes

Special Precautions for User: None known

Section 15: Regulatory Information

Regulations: Subject to various regulations including the Control of Major Accident Hazards Regulations (COMAH) and the Control of Substances Hazardous to Health Regulations (COSHH) in the UK.