

# Material Safety Data Sheet

## Pyrrole, 99%

ACC# 13468

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Pyrrole, 99%

**Catalog Numbers:** AC157710000, AC157710250, AC157711000, AC157715000, NC9115673, NC9115694, XXAC15771-10KG, XXAC15771-2KG

**Synonyms:** None known.

**Company Identification:**

Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410

**For information, call:** 201-796-7100

**Emergency Number:** 201-796-7100

**For CHEMTREC assistance, call:** 800-424-9300

**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

| CAS#     | Chemical Name | Percent | EINECS/ELINCS |
|----------|---------------|---------|---------------|
| 109-97-7 | Pyrrole       | 99%     | 203-724-7     |

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: clear almost colorless which darkens on standing liquid. Flash Point: 33 deg C.

**Warning! Flammable liquid and vapor.** May cause eye and skin irritation. May cause respiratory and digestive tract irritation. May cause central nervous system depression. Air sensitive. Light sensitive. May cause liver damage. Moisture sensitive.

**Target Organs:** Central nervous system, liver.

#### Potential Health Effects

**Eye:** May cause eye irritation. May cause chemical conjunctivitis and corneal damage.

**Skin:** May cause irritation and dermatitis. May cause cyanosis of the extremities.

**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Ingestion of large amounts may cause CNS depression. May cause urine discoloration and lung and liver injury.

**Inhalation:** May cause respiratory tract irritation. Aspiration may lead to pulmonary edema. Vapors may cause dizziness or suffocation. May cause burning sensation in the chest.

**Chronic:** Effects may be delayed.

### Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Get medical aid if irritation develops or persists. Wash clothing before reuse. Flush skin with plenty of soap and water.

**Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Remove from exposure and move to fresh air immediately. Get medical aid if cough or other symptoms appear. Do NOT use mouth-to-mouth resuscitation.

**Notes to Physician:** Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Will burn if involved in a fire. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Water may be ineffective. Material is lighter than water and a fire may be spread by the use of water. Containers may explode in the heat of a fire. Flammable liquid and vapor. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

**Extinguishing Media:** For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT get water inside containers. Do NOT use straight streams of water.

**Flash Point:** 33 deg C ( 91.40 deg F)

**Autoignition Temperature:** 550 deg C ( 1,022.00 deg F)

**Explosion Limits, Lower:**3.10 vol %

**Upper:** 14.80 vol %

**NFPA Rating:** (estimated) Health: 2; Flammability: 2; Instability: 0

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Remove all sources of ignition. Use a spark-proof tool. Place under an inert atmosphere. Do not get water inside containers. A vapor suppressing foam may be used to reduce vapors.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Use with adequate ventilation. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Store protected from light. Handle under an inert atmosphere. Store protected from air. Do not allow contact with water. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Keep from contact with moist air and steam.

**Storage:** Keep away from heat, sparks, and flame. Keep away from sources of ignition. Do not store in direct sunlight. Store in a tightly closed container. Flammables-area. Do not expose to air. Store protected from moisture. Store protected from light. Store under an inert atmosphere.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

### Exposure Limits

| Chemical Name | ACGIH       | NIOSH       | OSHA - Final PELs |
|---------------|-------------|-------------|-------------------|
| Pyrrole       | none listed | none listed | none listed       |

**OSHA Vacated PELs:** Pyrrole: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** clear almost colorless which darkens on standing

**Odor:** Burning pungent odor

**pH:** Not available.

**Vapor Pressure:** 8.7 mbar @ 20 deg C

**Vapor Density:** 2.31

**Evaporation Rate:** Not available.

**Viscosity:** mPas 20 deg C

**Boiling Point:** 129 - 131 deg C

**Freezing/Melting Point:** -23 deg C

**Decomposition Temperature:** Not available.

**Solubility:** SOLUBLE IN WATER: 60 G/L 20°C

**Specific Gravity/Density:** .9670g/cm3

**Molecular Formula:** C4H5N

**Molecular Weight:** 67.09

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** High temperatures, incompatible materials, light, ignition sources, moisture, exposure to air, excess heat, exposure to moist air or water.

**Incompatibilities with Other Materials:** Air, moisture, strong oxidizing agents, strong reducing agents, strong acids, strong bases.

**Hazardous Decomposition Products:** Nitrogen oxides, carbon monoxide, carbon dioxide, nitrogen.

**Hazardous Polymerization:** Will occur.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 109-97-7: UX9275000

**LD50/LC50:**

Not available.

**Carcinogenicity:**

CAS# 109-97-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information found  
**Teratogenicity:** No information found  
**Reproductive Effects:** No information found  
**Mutagenicity:** dnr-bcs 20100 µg/diskGenotoxicity: Salmonella typhimurium TA98, TA100, TA102 wit and without metabolic activation negative.Lenga,R.E.(Ed.)Sigma-Aldrich Library of Chemical Safety Data 2nd ed.,1988,2,3012,Sigma-Aldrich, Milwaukee, WI)Bacillus Subtilis H17 (Rec+), M45(Rec-) without metabolic activation positive.(Aeschbacher,H.U. et al Food Chem.Toxicol.1989,27(4),227-232.)  
**Neurotoxicity:** No information found  
**Other Studies:**

## Section 12 - Ecological Information

No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

|                         | US DOT                           | Canada TDG                           |
|-------------------------|----------------------------------|--------------------------------------|
| <b>Shipping Name:</b>   | FLAMMABLE LIQUIDS, TOXIC, N.O.S. | FLAMMABLE LIQUID TOXIC NOS (PYRROLE) |
| <b>Hazard Class:</b>    | 3                                | 3(6.1)                               |
| <b>UN Number:</b>       | UN1992                           | UN1992                               |
| <b>Packing Group:</b>   | III                              | II                                   |
| <b>Additional Info:</b> |                                  | FP 33C                               |

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 109-97-7 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 109-97-7: fire.

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 109-97-7 can be found on the following state right to know lists: Pennsylvania, Massachusetts.

### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

T

#### Risk Phrases:

R 10 Flammable.

R 25 Toxic if swallowed.

#### Safety Phrases:

- S 16 Keep away from sources of ignition - No smoking.
- S 33 Take precautionary measures against static discharges.
- S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S 9 Keep container in a well-ventilated place.
- S 28A After contact with skin, wash immediately with plenty of water

**WGK (Water Danger/Protection)**

CAS# 109-97-7: No information available.

**Canada - DSL/NDSL**

CAS# 109-97-7 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of B2, D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

|                                     |
|-------------------------------------|
| Section 16 - Additional Information |
|-------------------------------------|

**MSDS Creation Date:** 9/02/1997

**Revision #8 Date:** 10/03/2005

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