



## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION:

**PRODUCT CODE** H0027  
**PRODUCT NAME** 2-METHOXY-3-SEC-BUTYL PYRAZINE  
**SUPPLIER** Shanghai M & U International Trade Co., Ltd.  
Rm 1717, No 598 North NuJiang Road  
200333 Shanghai, China  
+86-21-32515501 32515502  
sales@mu-intel.com

**FOR EMERGENCIES CALL CHEMTREC: 800-424-9300 (24-HOURS)**

### 2. HAZARD IDENTIFICATION:

#### Emergency Overview

#### OSHA Hazards

Combustible Liquid, Toxic by ingestion

#### Other hazards which do not result in classification

Lachrymator.

#### GHS Label elements, including precautionary statements

Pictogram

Signal word Warning

#### Hazard statement(s)

H227 Combustible liquid

H302 Harmful if swallowed

#### Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P264 Wash skin thoroughly after handling.

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

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301 P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330 Rinse mouth.

P370 P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

P403 P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container to an approved waste disposal plant.

#### HMIS Classification

Health hazard 1

Flammability 1

Physical hazards 1

**NFPA Rating**

Health hazard 1  
Fire 1  
Reactivity Hazard 1

**Potential Health Effects**

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.  
Skin May be harmful if absorbed through skin. May cause skin irritation  
Eyes May cause eye irritation.  
Ingestion Toxic if swallowed.

**3. COMPOSITION AND INFORMATION ON INGREDIENTS:**

**Synonym** 2-*sec*-Butyl-3-methoxypyrazine  
**Formula** C9 H14 N2 O  
**Molecular Weight** 166.22 g/mol

CAS-No	EC-No	Index-No.	Concentration
24168-70-5	246-050-9		

**4. FIRST-AID GUIDE:****General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**5. FIRE-FIGHTING GUIDE:****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**6. ACCIDENTAL RELEASE GUIDE:****Personal precautions**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

**Environmental precautions**

Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

**7. HANDLING AND STORAGE:**

**Precautions for safe handling**

Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge.

**Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place Containers which are opened must be carefully resealed and kept upright to prevent leakage.

**8. EXPOSURE AND PERSONAL PROTECTION:**

Contains no substances with occupational exposure limit values.

**Personal protective equipment:**

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**

Handle with gloves.

**Eye protection**

Face shield and safety glasses.

**Skin and body protection**

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**9. PHYSICAL AND CHEMICAL PROPERTIES:**

**Appearance**

Form	LIQUID
Color	COLORLESS TO PALE YELLOW

**Safety data**

Melting point (°C)	no data available
Boiling point (°C)	50

Flash point (°F) Closed cup	171
Vapor pressure (mmHg@20°C)	no data available
Density @25 °C	no data available
Water solubility	INSOLUBLE
Partition coefficient: n-octanol/water	log Pow: 1.916
Relative vapor density	no data available
Odor	STRONG, MUSTARD

## 10. STABILITY AND REACTIVITY:

### Chemical stability

Stable under recommended storage conditions.

### Materials to avoid

Strong oxidizing agents, strong acids.

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

## 11. TOXICOLOGICAL INFORMATION:

### Carcinogenicity

IARC:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP:

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion Toxic if swallowed.

Skin May be harmful if absorbed through skin May cause skin irritation.

Eyes May cause eye irritation.

### Signs and Symptoms of Exposure

Burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting. To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

## 12. DISPOSAL RECOMMENDATIONS:

**Product**

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all deferral, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**

Dispose of as unused product.

**13. TRANSPORTATION INFORMATION:****DOT (US)**

UN number: 3334 Class: 9

Proper shipping name: Aviation regulated liquid, n.o.s. (2-sec-Butyl-3-methoxypyrazine)

Marine pollutant: No

Poison Inhalation Hazard: No

**IMDG**

Not dangerous goods

**IATA**

UN number: 3334 Class: 9 Packing group: III

Proper shipping name: Aviation regulated liquid, n.o.s. (2-sec-Butyl-3-methoxypyrazine)

**14. REGULATORY INFORMATION:****OSHA Hazards**

Combustible Liquid, Toxic by ingestion.

**DSL Status**

All components of this product are on the Canadian DSL list.

**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

Fire Hazard, Acute Health Hazard

**Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components**

3-sec-Butyl-2-methoxypyrazine	CAS-No.	Revision Date
	24168-70-5	

**New Jersey Right To Know Components**

3-sec-Butyl-2-methoxypyrazine	CAS-No.	Revision Date
	24168-70-5	

**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**15. OTHER INFORMATION:**

The information in this MSDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond M&U's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the MSDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the MSDS. The user should review these regulations to ensure full compliance.

Material Safety Data Sheet prepared by: **M & U International LLC**